

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1612RXD

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS	3	MAR 16	CASREACT coverage extended
NEWS	4	MAR 20	MARPAT now updated daily
NEWS	5	MAR 22	LWPI reloaded
NEWS	6	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS	7	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS	8	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS	9	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS	10	APR 30	CA/CAPplus enhanced with 1870-1889 U.S. patent records
NEWS	11	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	12	MAY 01	New CAS web site launched
NEWS	13	MAY 08	CA/CAPplus Indian patent publication number format defined
NEWS	14	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	15	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	16	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	17	MAY 21	CA/CAPplus enhanced with additional kind codes for German patents
NEWS	18	MAY 22	CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS	19	JUN 27	CA/CAPplus enhanced with pre-1967 CAS Registry Numbers
NEWS	20	JUN 29	STN Viewer now available
NEWS	21	JUN 29	STN Express, Version 8.2, now available
NEWS	22	JUL 02	LEMBASE coverage updated
NEWS	23	JUL 02	LMEDLINE coverage updated
NEWS	24	JUL 02	SCISEARCH enhanced with complete author names
NEWS	25	JUL 02	CHEMCATS accession numbers revised
NEWS	26	JUL 02	CA/CAPplus enhanced with utility model patents from China
NEWS	27	JUL 16	CAPplus enhanced with French and German abstracts
NEWS	28	JUL 18	CA/CAPplus patent coverage enhanced
NEWS	29	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 14:32:39 ON 26 JUL 2007

=>

=> file registry

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:32:48 ON 26 JUL 2007

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STRUCTURE FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8

DICTIONARY FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

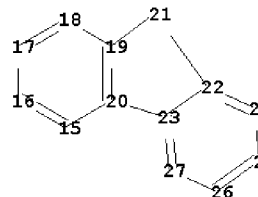
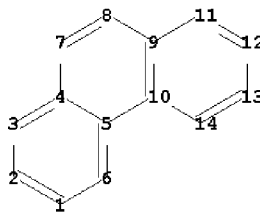
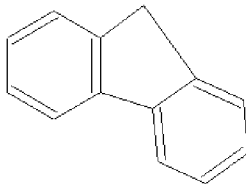
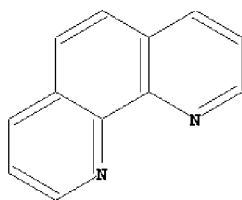
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10527192.str



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27

ring bonds :

1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
 13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24
 23-27 24-25 25-26 26-27
 exact/norm bonds :
 19-21 20-23 21-22
 normalized bonds :
 1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
 13-14 15-16 15-20 16-17 17-18 18-19 19-20 22-23 22-24 23-27 24-25 25-26
 26-27

Match level :

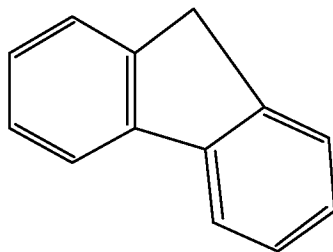
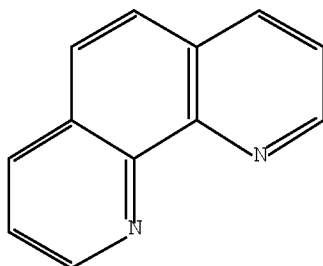
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
 26:CLASS 27:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:33:13 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 796 TO ITERATE

100.0% PROCESSED 796 ITERATIONS

7 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 14228 TO 17612

PROJECTED ANSWERS: 7 TO 298

L2 7 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 14:33:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 15492 TO ITERATE

100.0% PROCESSED 15492 ITERATIONS 157 ANSWERS
SEARCH TIME: 00.00.01

L3 157 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 172.10 172.31

FILE 'CAPLUS' ENTERED AT 14:33:21 ON 26 JUL 2007
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FILE COVERS 1907 - 26 Jul 2007 VOL 147 ISS 5
FILE LAST UPDATED: 25 Jul 2007 (20070725/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s l3

L4 69 L3

=> d abs bib hitstr 1-2

L4 ANSWER 1 OF 69 CAPLUS COPYRIGHT 2007 ACS on STN
AB The subject matter disclosed herein generally relates to org. light-emitting materials A-(L-Og)p (A = a hole-conducting core, an electron-conducting core, or a non-conducting core; L = an aliphatic linker; Og = a conjugated oligomer; p = 1-10) and methods for their preparation and use. Also, devices involve organic light emitting materials are disclosed.
AN 2007:534830 CAPLUS Full-text
DN 146:531624
TI Light-emitting organic materials
IN Chen, Shaw H.; Chen, Andrew Chien-An; Wallace, Jason U.; Zeng, Lichang
PA USA
SO U.S. Pat. Appl. Publ., 90pp.
CODEN: USXXCO
DT Patent
LA English

FAN.CNT 1

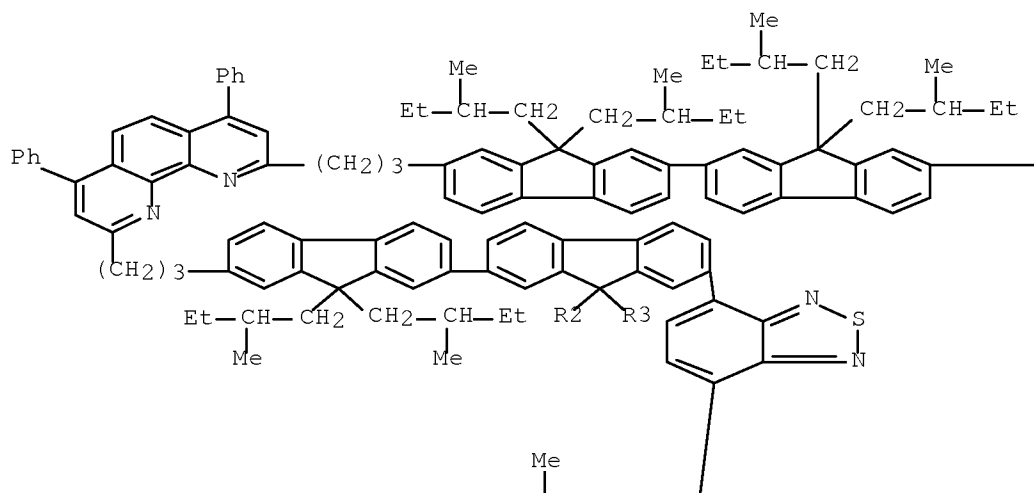
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007111027	A1	20070517	US 2006-494854	20060728
PRAI	US 2005-703908P	P	20050729		
IT	937009-36-4P				

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation and use of light-emitting organic materials)

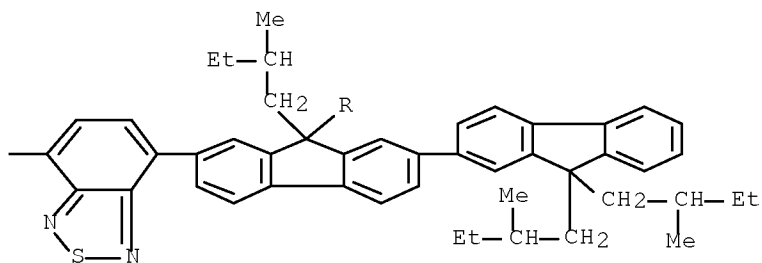
RN 937009-36-4 CAPLUS

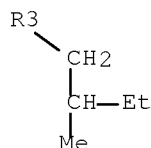
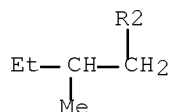
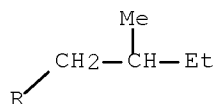
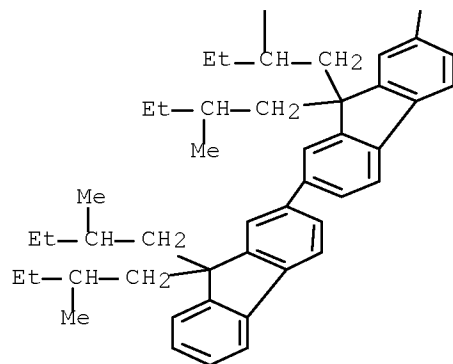
CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis[3-[9,9,9',9'-tetrakis(2-methylbutyl)-7'-[7-[9,9,9',9'-tetrakis(2-methylbutyl)[2,2'-bi-9H-fluoren]-7-yl]-2,1,3-benzothiadiazol-4-yl][2,2'-bi-9H-fluoren]-7-yl]propyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

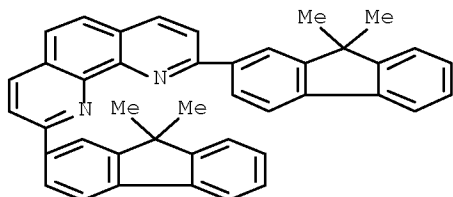




L4 ANSWER 2 OF 69 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The invention relates to an org. light-emitting device, comprising a 1st active layer and a 2nd active layer fabricated between an anode and a cathode, wherein the HOMO (LUMO) energy level of the main compound in the 1st active layer is greater than that of the main compound in the 2nd active layer located at the cathode side and the recombination region spreads in the both active layers, centering the boundary between the 1st and the 2nd active layer.
 AN 2007:409195 CAPLUS Full-text
 DN 146:411169
 TI Organic light-emitting device
 IN Okinaka, Keiji; Saito, Akito; Yamada, Naoki
 PA Canon Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 22pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
_____	_____	_____	_____	_____

PI JP 2007096023 A 20070412 JP 2005-283895 20050929
 PRAI JP 2005-283895 20050929
 IT 676542-63-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (electron transport layer; organic light-emitting device)
 RN 676542-63-5 CAPLUS
 CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
 NAME)



=> logoff hold
 COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
11.48	183.79

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE	TOTAL
ENTRY	SESSION
-1.56	-1.56

SESSION WILL BE HELD FOR 120 MINUTES
 STN INTERNATIONAL SESSION SUSPENDED AT 14:34:23 ON 26 JUL 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1612RXD

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1	Web Page for STN Seminar Schedule - N. America
NEWS 2 JUL 02	LMEDLINE coverage updated
NEWS 3 JUL 02	SCISEARCH enhanced with complete author names
NEWS 4 JUL 02	CHEMCATS accession numbers revised
NEWS 5 JUL 02	CA/CAPLUS enhanced with utility model patents from China
NEWS 6 JUL 16	CAPLUS enhanced with French and German abstracts
NEWS 7 JUL 18	CA/CAPLUS patent coverage enhanced
NEWS 8 JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9 JUL 30	USGENE now available on STN
NEWS 10 AUG 06	CAS REGISTRY enhanced with new experimental property tags

NEWS 11 AUG 06 FSTA enhanced with new thesaurus edition
 NEWS 12 AUG 13 CA/CAPplus enhanced with additional kind codes for granted patents
 NEWS 13 AUG 20 CA/CAPplus enhanced with CAS indexing in pre-1907 records
 NEWS 14 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
 NEWS 15 AUG 27 USPATOLD now available on STN
 NEWS 16 AUG 28 CAS REGISTRY enhanced with additional experimental spectral property data
 NEWS 17 SEP 07 STN AnaVist, Version 2.0, now available with Derwent World Patents Index
 NEWS 18 SEP 13 FORIS renamed to SOFIS
 NEWS 19 SEP 13 INPADOCDB enhanced with monthly SDI frequency
 NEWS 20 SEP 17 CA/CAPplus enhanced with printed CA page images from 1967-1998
 NEWS 21 SEP 17 CAPplus coverage extended to include traditional medicine patents
 NEWS 22 SEP 24 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 23 OCT 02 CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt
 NEWS 24 OCT 19 BEILSTEIN updated with new compounds
 NEWS 25 NOV 15 Derwent Indian patent publication number format enhanced
 NEWS 26 NOV 19 WPIX enhanced with XML display format
 NEWS 27 NOV 30 ICSD reloaded with enhancements

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN Welcome Banner and News Items
 NEWS IPC8 For general information regarding STN implementation of IPC 8

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:13:53 ON 30 NOV 2007

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 12:14:27 ON 30 NOV 2007
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FILE COVERS 1907 - 30 Nov 2007 VOL 147 ISS 24
FILE LAST UPDATED: 29 Nov 2007 (20071129/ED)

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<http://www.cas.org/infopolicy.html>

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.47	0.68

FILE 'REGISTRY' ENTERED AT 12:14:34 ON 30 NOV 2007
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STRUCTURE FILE UPDATES: 29 NOV 2007 HIGHEST RN 956314-53-7
DICTIONARY FILE UPDATES: 29 NOV 2007 HIGHEST RN 956314-53-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

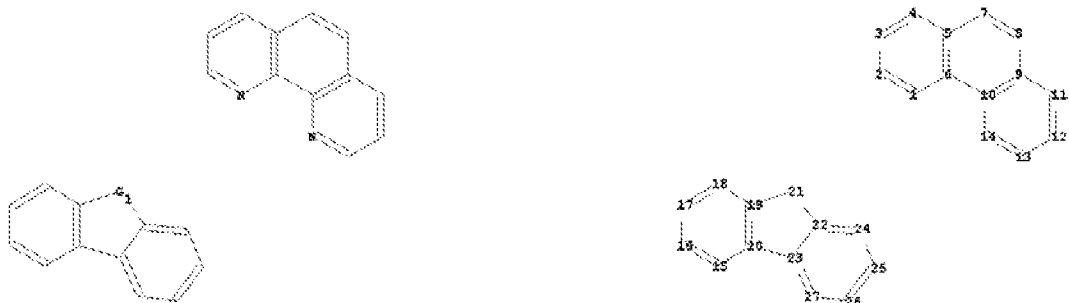
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10527192.str



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24
23-27 24-25 25-26 26-27

exact/norm bonds :

19-21 20-23 21-22

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 22-23 22-24 23-27 24-25 25-26
26-27

G1:C,N

Match level :

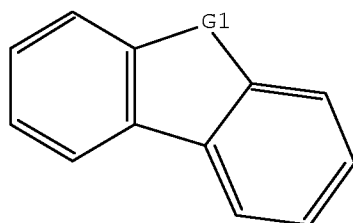
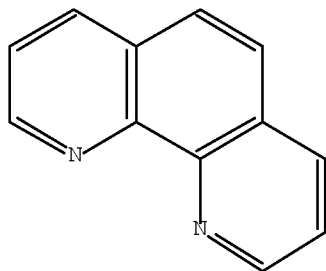
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
26:CLASS 27:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 C,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 12:15:06 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1553 TO ITERATE

100.0% PROCESSED 1553 ITERATIONS

11 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 28696 TO 33424

PROJECTED ANSWERS: 22 TO 418

L2 11 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 12:15:14 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 31027 TO ITERATE

100.0% PROCESSED 31027 ITERATIONS

243 ANSWERS

SEARCH TIME: 00.00.01

L3 243 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.78

FILE 'CAPLUS' ENTERED AT 12:15:23 ON 30 NOV 2007

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FILE COVERS 1907 - 30 Nov 2007 VOL 147 ISS 24
FILE LAST UPDATED: 29 Nov 2007 (20071129/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

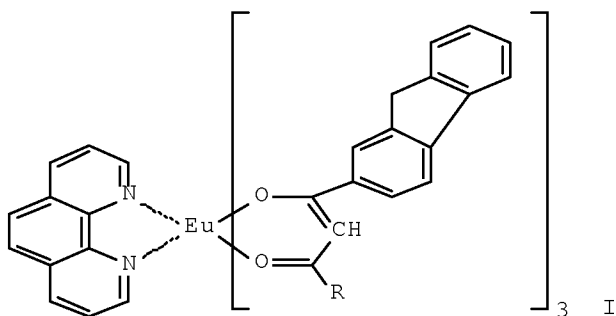
<http://www.cas.org/infopolicy.html>

=> s 13

L4 118 L3

=> d abs fbib 100-118

L4 ANSWER 100 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB The device, having ≥ 600 nm fluorescence peak, contains the title Eu complex I (R = H, OH, C1-20 (cyclo) alkyl, aryl). The substituent R in I may be haloalkyl. The device showed high luminance and excellent deterioration resistance.

AN 1998:576644 CAPLUS Full-text

DN 129:223052

TI Organic electroluminescent device containing fluorene-substituted phenanthroline-Eu complex as dopant

IN Kamikawa, Masahiro; Miyamoto, Hiroo

PA Oki Electric Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI	JP 10231477	A	19980902	JP 1997-35012	19970219
				JP 1997-35012	19970219

OS MARPAT 129:223052

L4 ANSWER 101 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Reverse saturable absorption of a novel Mo complex of fullerene (η^2 -C₆₀) Mo(CO)₂(o-phen)(DBM)·2C₆H₆·C₅H₁₂ was studied under irradiation of 10 ns laser pulses at 532 nm. An enhancement of the optical limiting behavior was observed in comparison with C₆₀. An explanation based on the enhanced triplet-state absorption caused by the intra-mol. charge transfer was predicted. The relation between the clamped laser fluence and low-intensity transmissivity, or the concentration of the solution, was also studied and a linear dependence was revealed.

AN 1998:416162 CAPLUS Full-text

DN 129:154405

TI Enhanced optical limiting performance of a novel molybdenum complex of fullerene

AU Zhang, Tieqiao; Li, Jianliang; Gao, Peng; Gong, Qihuang; Tang, Kaluo; Jin, Xianglin; Zheng, Shijun; Li, Lei

CS Mesoscopic Laboratory, Department of Physics, Peking University, Beijing, 100871, Peop. Rep. China

SO Optics Communications (1998), 150(1-6), 201-204

CODEN: OPCOB8; ISSN: 0030-4018

PB Elsevier Science B.V.

DT Journal

LA English

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 102 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A rotaxane made from a bisphenanthroline Cu(I) complex and two C₆₀ units acting as stoppers was synthesized. Electrochem., spectroscopic and photophys. properties of the individual components, a methanofullerene and a Cu(I) catenate, were determined. The properties of the methanofullerene were also compared with those of plain C₆₀ and rationalized with the aid of semiempirical calcns. The changes in the photophys. properties detected in the rotaxane with respect to the models were assigned to the occurrence of intramol. processes. The excited singlet state localized on the fullerene and the MLCT excited state centered on the Cu(I) complex are both quenched. Deactivation of the fullerene excited singlet state occurs by energy transfer to the Cu(I)-complex moiety, which competes with intersystem crossing to triplet fullerene, whereas the Cu(I)-complex excited state is mainly quenched by electron transfer to form the charge-separated state consisting of the oxidized metal center [Cu(phen)₂]²⁺ and the fullerene radical anion. The fullerene triplet, formed in reduced yield with respect to the model, is also quenched by electron transfer to the same charge-separated state. The ability of both model components to sensitize singlet oxygen is completely suppressed in the rotaxane. The occurrence of a fast back-electron-transfer reaction is postulated, as spectroscopic detection of the charge-separated state was not achieved.

AN 1998:223266 CAPLUS Full-text

DN 128:316543

TI A copper(I)-complexed rotaxane with two fullerene stoppers: synthesis, electrochemistry, and photoinduced processes

AU Armaroli, Nicola; Diederich, Francois; Dietrich-Buchecker, Christiane O.; Flamigni, Lucia; Marconi, Giancarlo; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre

CS Istituto di Fotochimica e Radiazioni d'Alta Energia del CNR, Bologna, I-40129, Italy

SO Chemistry--A European Journal (1998), 4(3), 406-416
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
RE.CNT 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 103 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Bromination of com. available 5,6-dimethyl-1,10-phenanthroline with N-bromosuccinimide led to the formation of 5,6-bis(bromomethyl)-1,10-phenanthroline, a new compound, in 33% isolated yield. Conversion of the brominated compound to its corresponding o-quinodimethane intermediate was accomplished by reaction with tetrahexylammonium iodide. Reaction of this intermediate with C60 in refluxing toluene resulted in the formation of the final product, phenanthrolyl[60]fullerene, compound (1), in a 43% isolated yield. Spontaneous self-assembly of 1,10-phenanthroline on a Au(111) surface resulted in the formation of well-ordered monolayers. Addition of compound (1) to these monolayers resulted in the intercalation of the phenanthrolyl group directly into the stacks. Self-assembly from a solution of compound (1) containing small amts. of 1,10-phenanthroline resulted in the formation of a secondary layer of fullerene moieties. Since the fullerene diameter is approx. 1.0 nm and the phenanthroline-phenanthroline distances are about 0.33 nm (almost exactly 1/3), the fullerene packing is approx. commensurate with that of the phenanthrolines.
AN 1998:69197 CAPLUS Full-text
DN 128:172638
TI Self-Assembled Fullerene-Derivative Monolayers on a Gold Substrate Using Phenanthroline-Au Interactions
AU Dominguez, Olaf; Echegoyen, Luis; Cunha, Fred; Tao, Nongjian
CS Department of Chemistry, University of Miami, Coral Gables, FL, 33124, USA
SO Langmuir (1998), 14(4), 821-824
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 104 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Eu complexes with β -diketone ligands were synthesized and characterized using luminescence spectroscopy. Complexes with fluorene show high fluorescence in THF solution and exhibit a sharp emission peak at 615 nm. The authors have improved the energy transfer from the blue-emitting material (host) to the Eu complex (guest) by the synthesis of a new Eu complex which exhibits an absorption peak at lower energy with respect to the emission energy of the host. With respect to volatility, since some thin films of the complexes were not formed easily by vapor deposition, the authors have examined the thermal properties of the Eu complexes with phenanthroline derivs. The efficiency of the energy transfer and volatility of these complexes are discussed.
AN 1998:57744 CAPLUS Full-text
DN 128:148811
TI Synthesis and luminescent properties of europium complexes
AU Uekawa, M.; Miyamoto, Y.; Ikeda, H.; Kaifu, K.; Nakaya, T.
CS Higashiasakawa Hachioji, 550-5, Research and Development Group, Oki Electric Industry Co., Ltd., Tokyo, 193, Japan
SO Synthetic Metals (1997), 91(1-3), 259-262
CODEN: SYMEDZ; ISSN: 0379-6779
PB Elsevier Science S.A.
DT Journal

LA English

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 105 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB The macrocyclization between buckminsterfullerene, C₆₀, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C₆₀ with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C₆₀ under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH₂Cl₂ showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction. In CH₂Cl₂, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π -chromophore and a larger raise in LUMO energy in the former derivs.

AN 1997:727152 CAPLUS Full-text

DN 128:75385

TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives

AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice

CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.

SO Helvetica Chimica Acta (1997), 80(7), 2238-2276

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 128:75385

L4 ANSWER 106 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Novel W and Mo complexes of fullerene [M(η^2 -C₆₀)(CO)₂(phen)(dbm)]·C₆H₆·C₅H₁₂ (M = W 1 or Mo 2; dbm = di-Bu maleate; phen = 1,10-phenanthroline) were synthesized by heating a solution of C₆₀ with [M(CO)₄(phen)] and dbm in toluene followed by chromatog. over silica gel. They were characterized by chemical anal., IR, UV/visible, ¹H and ¹³C NMR spectroscopy and single-crystal

x-ray diffraction anal. The complexes are isomorphous. The metal atom coordination is distorted octahedral with the two CO groups and phen in the equatorial plane and the metal binds in an η^2 fashion to C-C bonds of C60 and dbm. Both complexes are remarkably stable in air and have unusually good solubility

AN 1997:708146 CAPLUS [Full-text](#)

DN 127:358923

TI Syntheses and structural characterizations of novel tungsten and molybdenum complexes of fullerene $[M(\eta^2-C_{60})(CO)_2(phen)(dbm)].2C_{60}H_6.C_5H_{12}$ (M = W or Mo, phen = 1,10-phenanthroline, dbm = dibutyl maleate)

AU Tang, Kaluo; Zheng, Shijun; Jin, Xianglin; Zeng, Hui; Gu, Zhennan; Zhou, Xihuang; Tang, Youqi

CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China

SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (19), 3585-3587
CODEN: JCOTBI; ISSN: 0300-9246

PB Royal Society of Chemistry

DT Journal

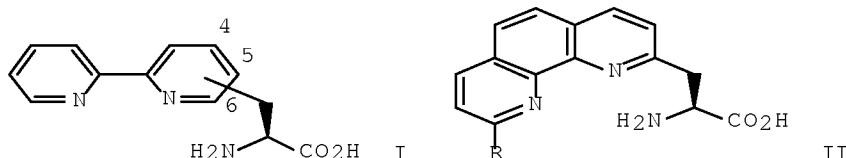
LA English

OS CASREACT 127:358923

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 107 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI



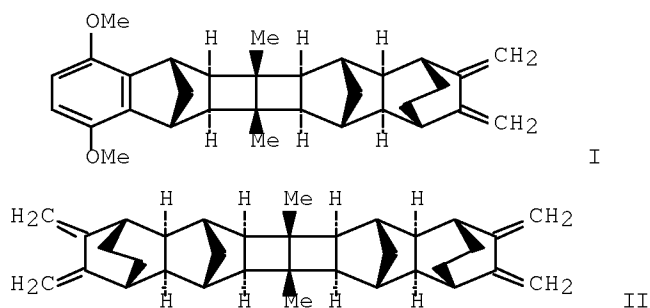
AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α -amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α -amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrolyl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid β -carbon are observed. Addnl., the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation consts. ranging from 10^{-3} to $<10^{-6}$ M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

AN 1996:657128 CAPLUS [Full-text](#)

DN 126:19209

TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural
Amino Acids and Peptide Secondary Structure
AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara
CS Division of Chemistry and Chemical Engineering, California Institute of
Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 126:19209
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 108 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Using std. synthetic or electrosynthetic techniques the authors prepd. five
previously unreported fullerene derivs. Three of these are bis-aza-
homofullerene (also known as aza-fulleroid) derivs. that contain a crown ether
directly fused to the C60 moiety. Preliminary electrochem. results with these
comps. show that complexation with alkali metal ions leads to strong effects
in their voltammetric responses. A new methanofullerene, compound was
prepared by the reaction of C602-, generated electrochem., with I2CH(t-butyl).
This is the 1st time that methanofullerenes were prepared
electrosynthetically. Other similar derivs. were prepared using the same
technique, to probe the mechanism of the reaction. Results suggest a single
electron transfer (SET) mechanism. Finally, a phenanthrolyl[60]fullerene was
prepared directly by reacting the corresponding 9,10-
bis(bromomethyl)phenanthroline with C60 in the presence of I-.
AN 1996:570704 CAPLUS Full-text
DN 125:300977
TI Synthesis and electrosynthesis of methano[60]fullerenes, bis-aza-fulleroid
crown ethers, and phenanthrolyl[60]fullerene
AU Arias, Francisco; Boulas, Pierre; Zuo, Yuhong; Dominguez, Olaf;
Gomez-Kaifer, Marielle; Echegoyen, Luis
CS Dep. Chem., Univ. Miami, Coral Gables, FL, 33124, USA
SO Proceedings - Electrochemical Society (1996), 96-10(Recent Advances in the
Chemistry and Physics of Fullerenes and Related Materials, Vol. 3),
165-176
CODEN: PESODO; ISSN: 0161-6374
PB Electrochemical Society
DT Journal
LA English
L4 ANSWER 109 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB Diels-Alder reaction of C60 with 1,3-dienes, e.g. I, affords "ball-and-chain" systems bearing two chromophores linked via a rigid, hybrid saturated polynorbornane-bicyclo[2.2.0]hexane ("norbornylogous") hydrocarbon bridge. Analogous reaction with the bis(diene) II affords a soluble dumbbell system bearing two C60 chromophores. The norbornylogous bridge is a strong mediator of electron and energy transfer via a through-bond coupling mechanism. The X-ray structure of a dimethoxybenzene-bridge-C60 system reveals favorable self-complementarity manifested by the unusual packing structure in the crystal. Mol. mechanics, semiempirical, and ab initio conformational analyses of some of these compds. (MM2, Sybyl, CVFF, AM1, HF/3-21G) were performed to quantify their ability to adopt two nondegenerate boat conformations, i.e., extended and folded conformers, as well as their kinetic barrier of interconversion. A similar treatment of the C60-bridge-C60 system prepared from II revealed unusual preference for the folded-folded conformer (18.9 kcal/mol at CVFF level), which was not reproduced by the AM1 method (0.11 kcal/mol). The reduction potentials of the systems were about 0.1-0.5 V more neg. than C60, and the third reduction potential (E3) of a 6-bond system was 0.14 V more neg. than the corresponding wave for a 10-bond system.

AN 1996:401828 CAPLUS Full-text

DN 125:194922

TI Synthesis of a Variety of Bichromophoric "Ball-and-Chain" Systems Based on Buckminsterfullerene (C60) for the Study of Intramolecular Electron and Energy Transfer Processes

AU Lawson, James M.; Oliver, Anna M.; Rothenfluh, Daniel F.; An, Yi-Zhong; Ellis, George A.; Ranasinghe, Millagahamada G.; Khan, Saeed I.; Franz, Andreas G.; Ganapathi, Padma S.; et al.

CS School of Chemistry, University of New South Wales, Sydney, 2052, Australia

SO Journal of Organic Chemistry (1996), 61(15), 5032-5054

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

L4 ANSWER 110 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB An iterative design process involving the synthesis and structural analyses of five polypeptides patterned after the zinc finger domains is described. This process has led to the development of a metal-independent 23-residue folded $\beta\beta\alpha$ peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthrol-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-

dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is 0.9 ± 0.3 Å. Anal. of the resulting structure reveals that the α -helix and β -hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β -hairpin formation; a control peptide, in which the β -turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text

DN 124:317843

TI Economy in Protein Design: Evolution of a Metal-Independent
 $\beta\beta\alpha$ Motif Based on the Zinc Finger Domains

AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara

CS Division of Chemistry and Chemical Engineering, California Institute of
Technology, Pasadena, CA, 91125, USA

SO Journal of the American Chemical Society (1996), 118(13), 3073-81
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

L4 ANSWER 111 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A series of receptors were prepd. all contg. two adenine binding sites linked by various spacers. Their ability to act as templates in the coupling of two adenine derivs., an active ester and an amine, in CHCl_3 was evaluated. The accelerations varied from none to 700-fold. Binding studies of the coupling product with these templates confirmed involvement of both binding sites. When the spacer was a 1,10-phenanthroline unit, an efficient hydrolysis reaction of the active ester was observed. Another series of receptors were prepared containing one adenine receptor and various polar functional groups. The mols. were evaluated as catalysts in the coupling of an adenine-derived active ester and n-butylamine. The orientation as well as the nature of the functional group greatly influenced the coupling rate. A carboxylate group was most effective, accelerating the intracomplex reaction 250-fold.

AN 1995:653636 CAPLUS Full-text

DN 123:256408

TI Passive template effects and active acid-base involvement in catalysis of
organic reactions

AU Pieters, Roland J.; Huc, Ivan; Rebek, Julius, Jr.

CS Dep. Chemistry, Massachusetts Inst. Technol., Cambridge, MA, 02139, USA

SO Chemistry--A European Journal (1995), 1(3), 183-92 Published in:
Angew. Chem., Int. Ed. Engl., 34(11)

CODEN: CEUJED; ISSN: 0947-6539

PB VCH

DT Journal

LA English

L4 ANSWER 112 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A three-component complex consisting of a coordinating ring, a copper(I) center and a difunctionalized fragment threaded inside the ring is reacted with a C60 derivative to afford a soluble rotaxane with two fullerenes as stoppers in 15% yield.

AN 1995:510099 CAPLUS Full-text

DN 122:305209

TI A copper(I)-complexed rotaxane with two fullerene stoppers

AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten,

Jean-Francois; Sauvage, Jean-Pierre
 CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
 SO Journal of the Chemical Society, Chemical Communications (1995), (7),
 781-2
 CODEN: JCCCAT; ISSN: 0022-4936
 PB Royal Society of Chemistry
 DT Journal
 LA English

L4 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The photoreceptors comprise a conductive substrate with a coating of a
 photosensitive layer containing ≥ 1 of dipyridophenanthroline-type bisazo
 compds. I, II, and III (A = coupler residue; R1, R2 = H, halo, alkyl, aryl) as
 a charge-generating agent. The photoreceptors show high photosensitivity and
 good durability. Thus, an Al vapor-deposited polyester film was coated with a
 composition containing I (A = IV) and 1-phenyl-3-(p-diethylaminostyryl)-5-(p-
 diethylaminophenyl)-2-pyrazoline to give a photoreceptor.

AN 1995:169535 CAPLUS Full-text

DN 122:118927

TI Electrophotographic photoreceptors using dipyridophenanthroline-type
 bisazo compound as charge-generating agent

IN Yamazaki, Mikio; Amano, Masayo; Kosho, Noboru

PA Fuji Electric Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 06202356	A	19940722	JP 1992-347401	19921228
				JP 1992-347401	19921228

L4 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Substituting C atoms of fullerenes by heteroatoms and vacancies will lead to
 new and yet unknown spherically-shaped mols. termed heterofullerenes. The
 enormous structural diversity of these mols. is examined and their structural,
 electronic, and thermochem. properties are predicted using semiempirical
 computations. Computational results for complexes with ions lead to the
 hypothesis that these mols. behave like microscopic Faraday cages in which the
 electrons concentrate on the outer side of the sphere. It is predicted that
 some of these heterofullerenes are structurally and electronically similar to
 phthalocyanines and related mols. but offer many addnl. advantages. Potential
 uses such as adding heterofullerenes to fullerene materials, as superior
 starting materials for the fabrication of diamonds, as catalysts in
 hydrogenation reactions, as components of materials dominated until now by
 phthalocyanines, etc., are discussed. Simple synthetic routes to these compds.
 that are based on minor alterations of existing methods for fullerene
 production are proposed. Thermochem. calcns. show that the most promising
 possibility consists of using metal cyanide/graphite composite target rods
 instead of pure graphite rods as in a conventional fullerene synthesis.

AN 1993:427631 CAPLUS Full-text

DN 119:27631

TI Heterofullerenes: structure and property predictions, possible uses and synthetic proposals

AU Karfunkel, Heinrich R.; Dressler, Thomas; Hirsch, Andreas

CS Ciba-Geigy AG, Basel, CH-4002, Switz.

SO Journal of Computer-Aided Molecular Design (1992), 6(5), 521-35
CODEN: JCADEQ; ISSN: 0920-654X

DT Journal

LA English

L4 ANSWER 115 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB The title compd. is monoclinic, space group P2₁/n, with a 9.101(2), b 20.681(3), c 11.101(1) Å, and β 93.55(2)°; Z = 2, dc = 1.55, R = 0.039 for 3064 reflections. Atomic coordinates are given. Every Cu atom is square pyramidally coordinated by 3 O atoms and 2 N atoms. The 2 Cu atoms are connected to 2 bridging OH O atoms to form a CuII binuclear unit with a Cu₂O₂ core. The binuclear unit as a whole possesses a center of symmetry with a Cu...Cu distance of 3.016 Å.

AN 1992:437256 CAPLUS Full-text

DN 117:37256

TI Structure of a copper complex of an α-hydroxylated acid:
bis[μ-(9-hydroxy-9H-fluorene-9-carboxylato-O,μ-O')]-bis(1,10-phenanthroline)copper(II)]

AU Liu, Shixiong; Yu, Yunpeng

CS Inst. Struct. Chem., Fuzhou Univ., Fuzhou, 350002, Peop. Rep. China

SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(4), 652-5

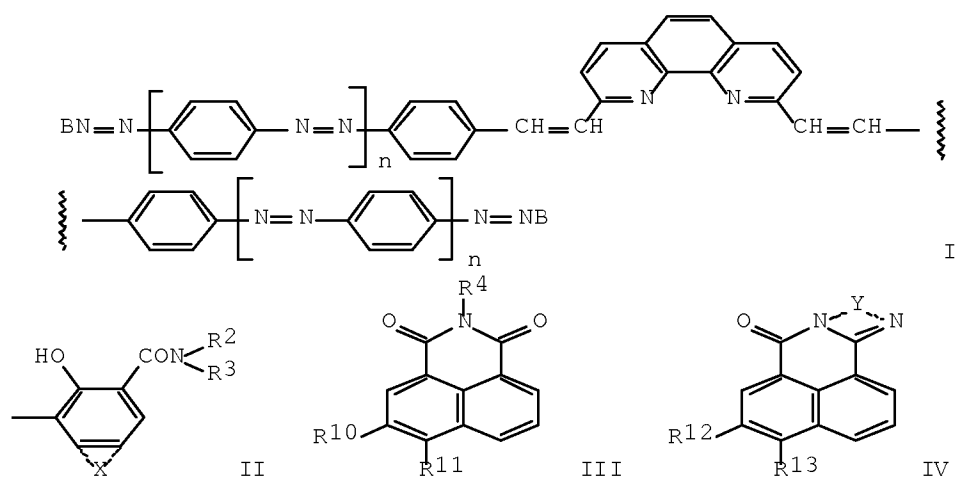
CODEN: ACSCEE; ISSN: 0108-2701

DT Journal

LA English

L4 ANSWER 116 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI



AB A photoconductive layer, which contains an azo deriv. I [n = 0, 1; B = II, III, IV (X = moiety to form a polycyclic conjugated ring or heterocyclic ring; R₂, R₃ = H, alkyl, aralkyl, aryl, group to form a heterocyclic ring; when R₂ is H, R₃ can be N:CR₆R₇ or NR₈R₉; R₄ = alkyl, aralkyl, aryl; Y = divalent

aromatic hydrocarbon moiety, heterocyclic moiety; R6-R7 = H, alkyl, aryl, heterocyclyl, cyclic hydrocarbon group; R8, R9 = R2 ; in R10-R11 and R12-R13 = one of them is OH and the other one is bond)], is image-wise exposed with ≥ 20 lx-s light to form an optical memory. The memory formation is based on optical memory effect, which allows to make multiple copies with single exposure. Image quality of 100th copy was the same as that of 1st copy.

AN 1990:108494 CAPLUS Full-text

DN 112:108494

TI Method for memory formation on the electrophotographic photoreceptor

IN Ito, Masayuki; Takada, Masakazu; Ueda, Takamasa

PA Minolta Camera Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 01161355	A	19890626	JP 1987-321918	19871218
				JP 1987-321918	19871218

L4 ANSWER 117 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI For diagram(s), see printed CA Issue.

AB The title toner contains bisazo dyes of the structure I (A = arom. heterocyclyl containing 2 N-atoms; B = a coupler group of the structure II, III, IV, V, VI, or VII; Z = a group forming aromatic C or heterocyclic rings; G = (substituted) carbamoyl, sulfamoyl; R1 = alkyl, amino, carbamoyl, (esterified) carboxy, CN; M = aryl; R2, R3 = alkyl, aralkyl, aryl; Y = an aromatic hydrocarbylene, a divalent N-containing group), dispersed in thermoplastic resins. This toner, for an electrophotog. method excluding the use of the usual photoconductors, has high photosensitivity, dispersibility, and thermal stability. Thus, a photoconductive toner was prepared from SBM73 (styrenic acrylic polymer), the bisazo compound VIII, p-diethylaminobenzaldehyde phenylhydrazone, and Viscol 550P (polyethylene-polypropylene). This toner spread on an bronze plate was charged by corona discharge, imagewise exposed, a paper receptor superposed thereon, and then oppositely charged to transfer the image onto the paper. A clear blue-purple image was obtained by thermal fixing.

AN 1989:564179 CAPLUS Full-text

DN 111:164179

TI Photoconductive electrophotographic toner

IN Yasuno, Masahiro; Takada, Masakazu; Ueda, Hideaki

PA Minolta Camera Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 01079757	A	19890324	JP 1987-238390	19870921
				JP 1987-238390	19870921

L4 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI

AB Electrophotog. photoreceptors have on a conductive support a photoconductive layer containing, as a charge carrier-generating agent, a bisazo compound of the formula (RN:N-p-C6H4CH:CH)2Z [I; R = a coupler residue selected from II [X = (substituted) aromatic hydrocarbon ring or heterocyclic ring; R1 = (substituted) carbamoyl or sulfamoyl], III [R2 = H, (substituted) aryl, amino, or carbamoyl, carboxyl or its ester, CN; R3 = (substituted) aryl], IV, V [R4, R5 = (substituted) alkyl or aralkyl, aryl], VI and VII (X1 = divalent aromatic hydrocarbon, divalent ring having N); Z = VIII, IX (R6 = H, halo, alkyl, alkoxy, CN, Ph). The coating solution of the layer exhibits good dispersibility, and the photoreceptors show good sensitivity, red color-reproducibility, and cyclicability. Thus, an Al-deposited polyester film was coated with a composition containing I (R = X; Z = VIII) and Vylon 200 (polyester resin) and overcoated with a composition containing a hydrazone and K-1300 (polycarbonate resin).

AN 1989:505765 CAPLUS Full-text

DN 111:105765

TI Electrophotographic photoreceptors containing bisazo pigment as charge carrier-generating agent

IN Takada, Masakazu; Ueda, Takamasa; Ito, Masayuki; Mikasa, Hiroko; Hirashima, Tsunesuke; Yamamoto, Soichi; Ishino, Yoshio; Ono, Toshinobu

PA Minolta Camera Co., Ltd., Japan; Osaka, City of

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01063971	A	19890309	JP 1988-34592	19880216
				JP 1987-126137	A1 19870522
	JP 01063972	A	19890309	JP 1988-34593	19880216
				JP 1987-126137	A1 19870522

PATENT FAMILY INFORMATION:

FAN 1990:207918

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01297652	A	19891130	JP 1988-127495	19880525
	US 4945021	A	19900731	US 1989-308629	19890210
				JP 1988-34593	A 19880216
				JP 1988-127495	A 19880525
				JP 1988-169379	A 19880707
				JP 1988-271899	A 19881027

FAN 1990:488242

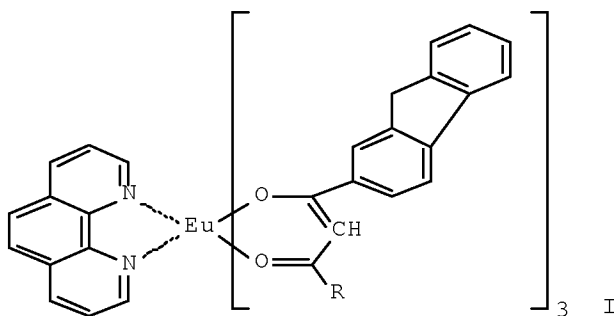
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PI	JP 02019854	A	19900123	JP 1988-169379	19880707
	US 4945021	A	19900731	US 1989-308629	19890210
				JP 1988-34593	A 19880216
				JP 1988-127495	A 19880525
				JP 1988-169379	A 19880707
				JP 1988-271899	A 19881027

FAN 1990:581400

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02118580	A	19900502	JP 1988-271899	19881027
	US 4945021	A	19900731	US 1989-308629	19890210
				JP 1988-34593	A 19880216
				JP 1988-127495	A 19880525
				JP 1988-169379	A 19880707

=> d abs fbib 100-118 hitstr

L4 ANSWER 100 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB The device, having ≥ 600 nm fluorescence peak, contains the title Eu complex I (R = H, OH, C1-20 (cyclo) alkyl, aryl). The substituent R in I may be haloalkyl. The device showed high luminance and excellent deterioration resistance.

AN 1998:576644 CAPLUS Full-text

DN 129:223052

TI Organic electroluminescent device containing fluorene-substituted phenanthroline-Eu complex as dopant

IN Kamikawa, Masahiro; Miyamoto, Hiroo

PA Oki Electric Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10231477	A	19980902	JP 1997-35012	19970219
				JP 1997-35012	19970219

OS MARPAT 129:223052

IT 202460-58-0P 202460-59-1P 202460-60-4P

RL: DEV (Device component use); MOA (Modifier or additive use); PNU

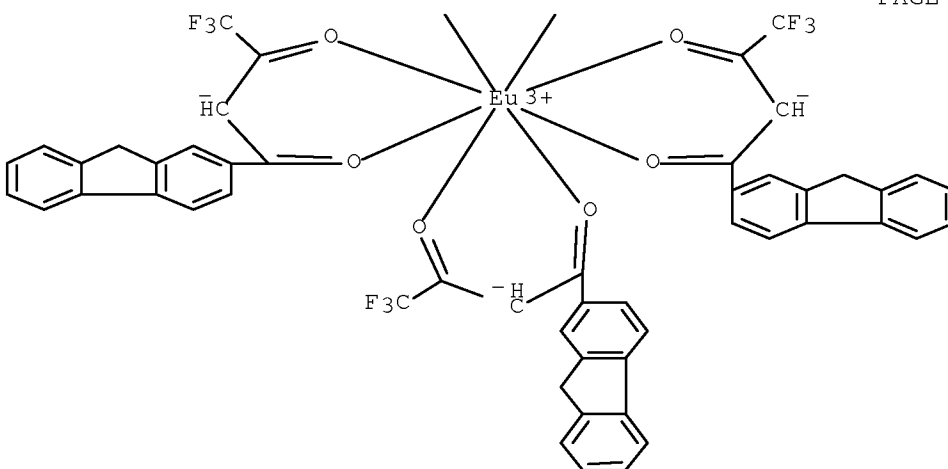
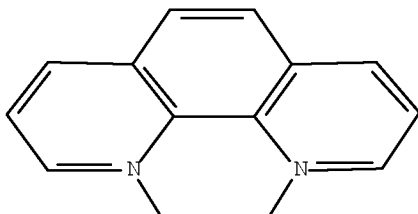
(Preparation, unclassified); PREP (Preparation); USES (Uses)

(high-luminance organic EL device containing fluorene-substituted phenanthroline-Eu complex as dopant)

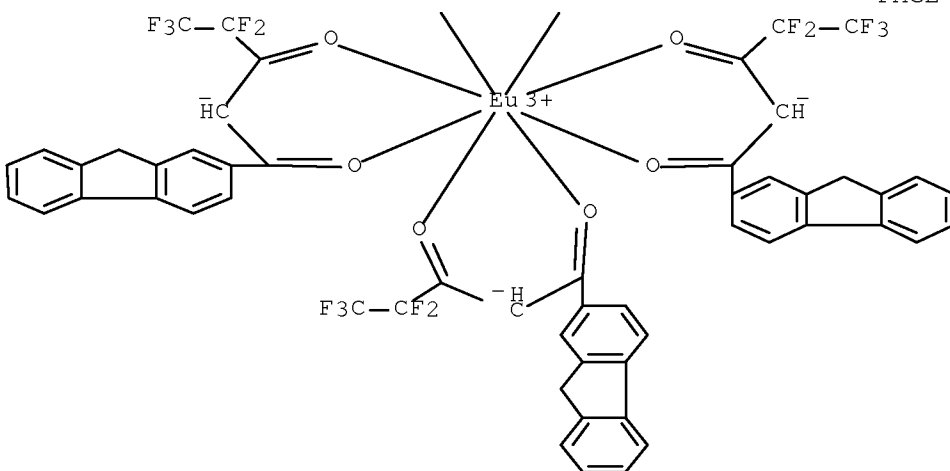
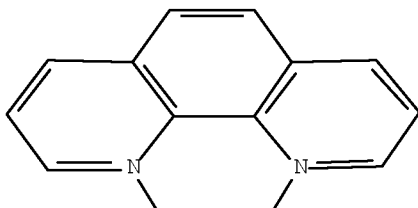
RN 202460-58-0 CAPLUS

CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,4-trifluoro-1,3-butanedionato- κ O, κ O'] (1,10-phenanthroline- κ N1, κ N10)- (9CI) (CA

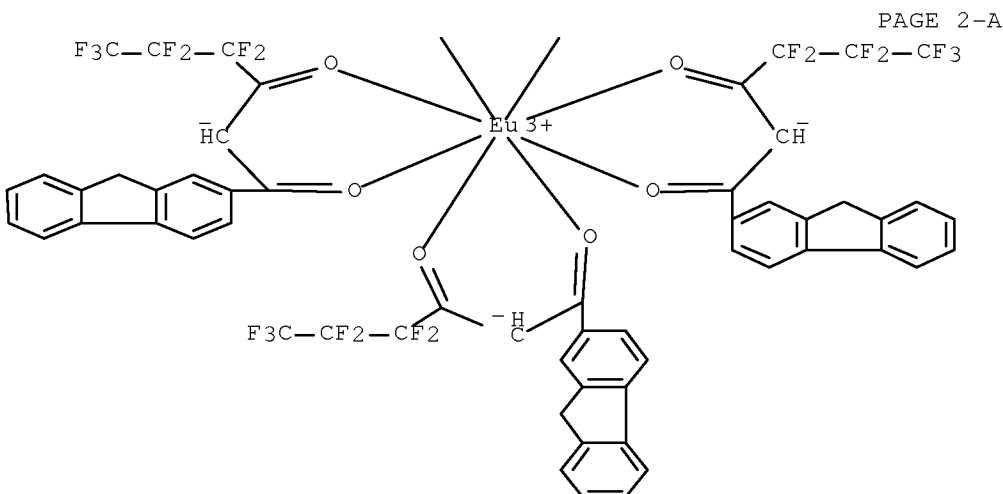
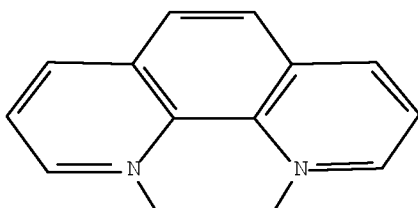
INDEX NAME)



RN 202460-59-1 CAPLUS
 CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,5-pentafluoro-1,3-pentanedionato-κO,κO'] (1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



RN 202460-60-4 CAPLUS
 CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO'] (1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



L4 ANSWER 101 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Reverse saturable absorption of a novel Mo complex of fullerene (η^2 -C₆₀) Mo(CO)₂(o-phen)(DBM)·2C₆H₆·C₅H₁₂ was studied under irradiation of 10 ns laser pulses at 532 nm. An enhancement of the optical limiting behavior was observed in comparison with C₆₀. An explanation based on the enhanced triplet-state absorption caused by the intra-mol. charge transfer was predicted. The relation between the clamped laser fluence and low-intensity transmissivity, or the concentration of the solution, was also studied and a linear dependence was revealed.

AN 1998:416162 CAPLUS [Full-text](#)

DN 129:154405

TI Enhanced optical limiting performance of a novel molybdenum complex of fullerene

AU Zhang, Tieqiao; Li, Jianliang; Gao, Peng; Gong, Qihuang; Tang, Kaluo; Jin, Xianglin; Zheng, Shijun; Li, Lei

CS Mesoscopic Laboratory, Department of Physics, Peking University, Beijing,
100871, Peop. Rep. China

SO Optics Communications (1998), 150(1-6), 201-204
CODEN: OPCOB8; ISSN: 0030-4018

PB Elsevier Science B.V.

DT Journal

LA English

IT 198712-81-1

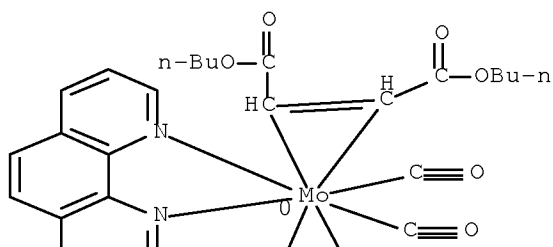
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)

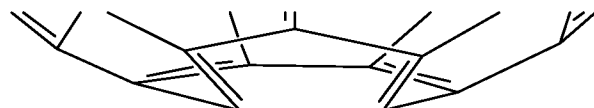
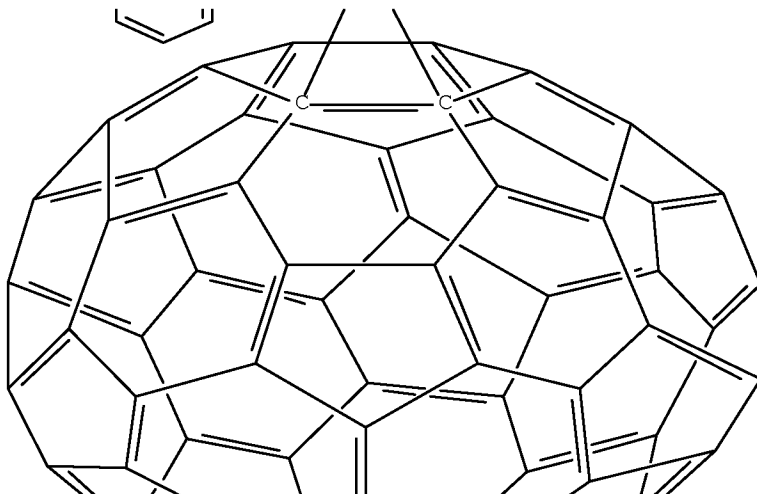
(enhanced optical limiting performance of a novel molybdenum complex of
fullerene with reverse saturable absorption and triplet-state charge
transfer)

RN 198712-81-1 CAPLUS

CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl 2-butenedioate][(1,9- η)-
[5,6]fullerene-C₆₀-1h](1,10-phenanthroline- κ N1, κ N10)-,
stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A





RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 102 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A rotaxane made from a bisphenanthroline Cu(I) complex and two C60 units acting as stoppers was synthesized. Electrochem., spectroscopic and photophys. properties of the individual components, a methanofullerene and a Cu(I) catenate, were determined. The properties of the methanofullerene were also compared with those of plain C60 and rationalized with the aid of semiempirical calcons. The changes in the photophys. properties detected in the rotaxane with respect to the models were assigned to the occurrence of intramol. processes. The excited singlet state localized on the fullerene and the MLCT excited state centered on the Cu(I) complex are both quenched. Deactivation of the fullerene excited singlet state occurs by energy transfer to the Cu(I)-complex moiety, which competes with intersystem crossing to triplet fullerene, whereas the Cu(I)-complex excited state is mainly quenched by electron transfer to form the charge-separated state consisting of the oxidized metal center [Cu(phen)2]2+ and the fullerene radical anion. The fullerene triplet, formed in reduced yield with respect to the model, is also quenched by electron transfer to the same charge-separated state. The ability of both model components to sensitize singlet oxygen is completely suppressed in the rotaxane. The occurrence of a fast back-electron-transfer reaction is postulated, as spectroscopic detection of the charge-separated state was not achieved.

AN 1998:223266 CAPLUS Full-text

DN 128:316543

TI A copper(I)-complexed rotaxane with two fullerene stoppers: synthesis,

electrochemistry, and photoinduced processes

AU Armaroli, Nicola; Diederich, Francois; Dietrich-Buchecker, Christiane O.; Flamigni, Lucia; Marconi, Giancarlo; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre

CS Istituto di Fotochimica e Radiazioni d'Alta Energia del CNR, Bologna, I-40129, Italy

SO Chemistry--A European Journal (1998), 4(3), 406-416
CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

IT 206365-55-1
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(elec. potential of couple containing)

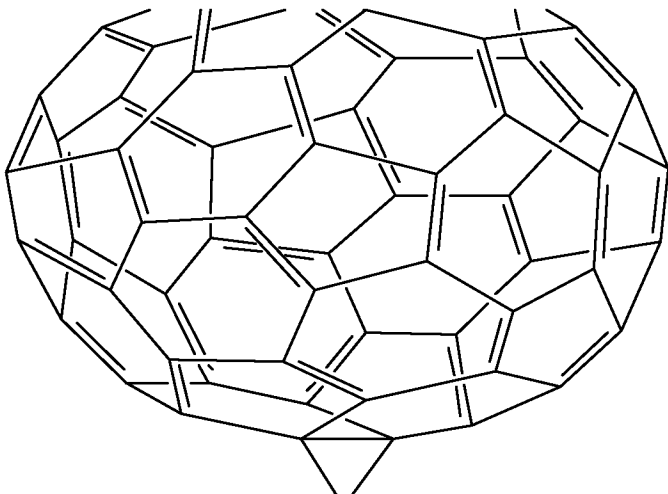
RN 206365-55-1 CAPLUS

CN Copper(2+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)- (9CI)
(CA INDEX NAME)

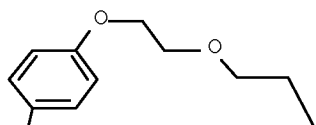
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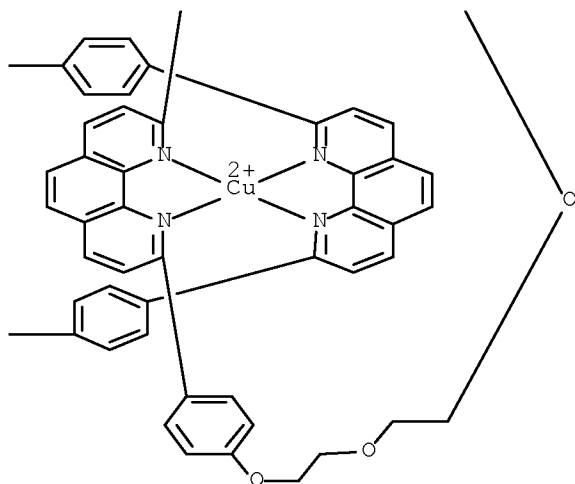
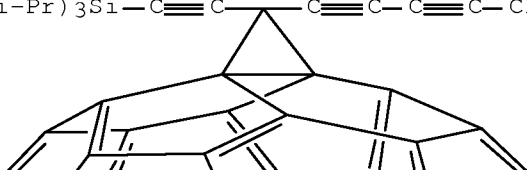
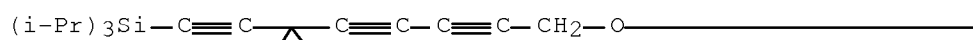
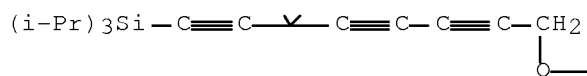


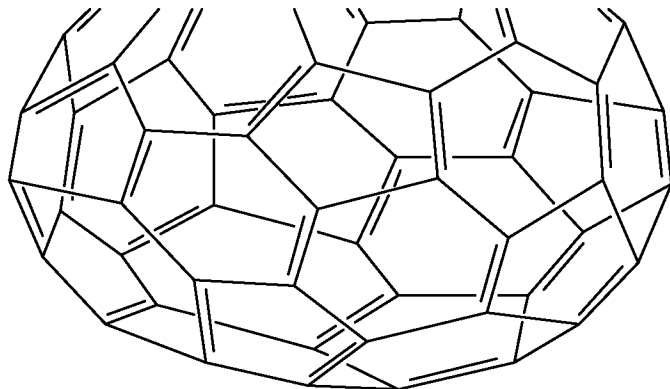
PAGE 2-A



PAGE 2-B







IT 163236-30-4P
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (preparation, electrochem., and photoinduced processes of copper(I) phenanthroline rotaxane complex with fullerene stoppers)

RN 163236-30-4 CAPLUS

CN Copper(1+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-1h-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

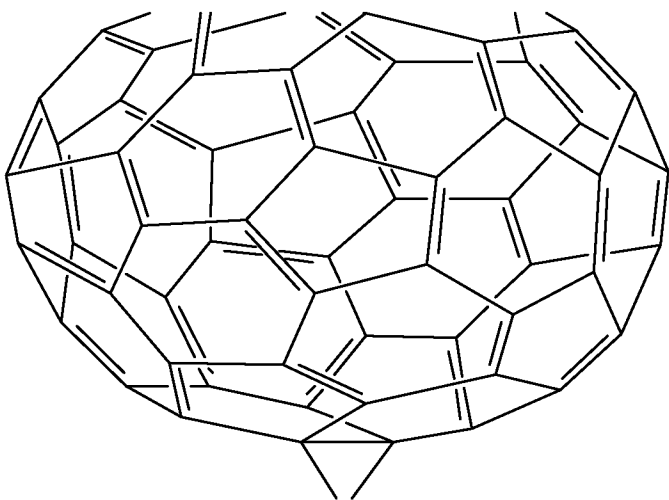
CRN 162994-22-1

CMF C210 H90 Cu N4 O7 Si2

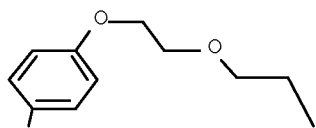
CCI CCS

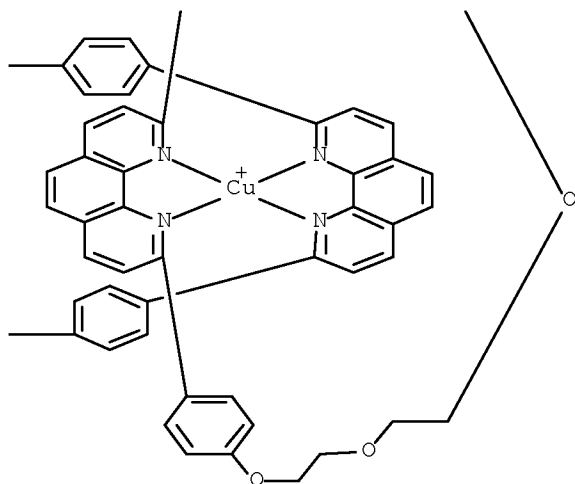
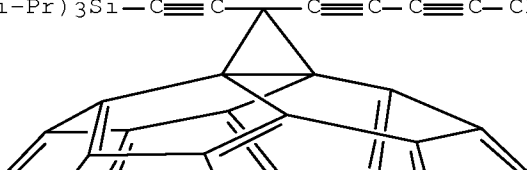
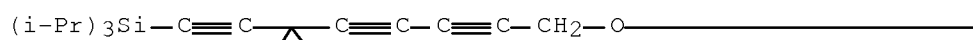
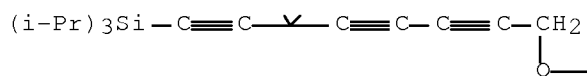


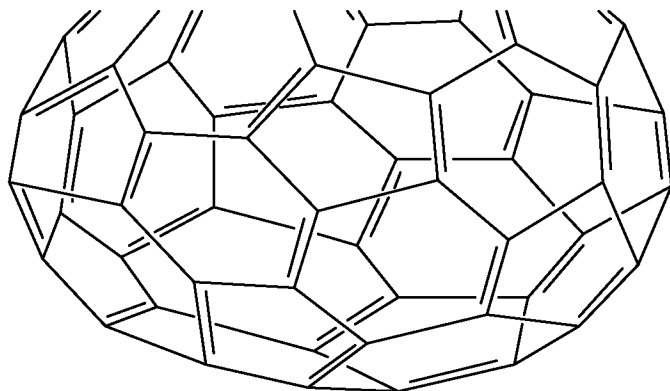
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PAGE 2-B





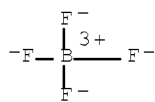


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RE.CNT 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 103 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Bromination of com. available 5,6-dimethyl-1,10-phenanthroline with N-bromosuccinimide led to the formation of 5,6-bis(bromomethyl)-1,10-phenanthroline, a new compound, in 33% isolated yield. Conversion of the brominated compound to its corresponding o-quinodimethane intermediate was accomplished by reaction with tetrahexylammonium iodide. Reaction of this intermediate with C60 in refluxing toluene resulted in the formation of the final product, phenanthrolyl[60]fullerene, compound (1), in a 43% isolated yield. Spontaneous self-assembly of 1,10-phenanthroline on a Au(111) surface resulted in the formation of well-ordered monolayers. Addition of compound (1) to these monolayers resulted in the intercalation of the phenanthrolyl group directly into the stacks. Self-assembly from a solution of compound (1) containing small amts. of 1,10-phenanthroline resulted in the formation of a secondary layer of fullerene moieties. Since the fullerene diameter is approx. 1.0 nm and the phenanthroline-phenanthroline distances are about 0.33 nm (almost exactly 1/3), the fullerene packing is approx. commensurate with that of the phenanthrolines.

AN 1998:69197 CAPLUS Full-text

DN 128:172638

TI Self-Assembled Fullerene-Derivative Monolayers on a Gold Substrate Using Phenanthroline-Au Interactions

AU Dominguez, Olaf; Echegoyen, Luis; Cunha, Fred; Tao, Nongjian

CS Department of Chemistry, University of Miami, Coral Gables, FL, 33124, USA

SO Langmuir (1998), 14(4), 821-824

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

IT 182760-72-1F

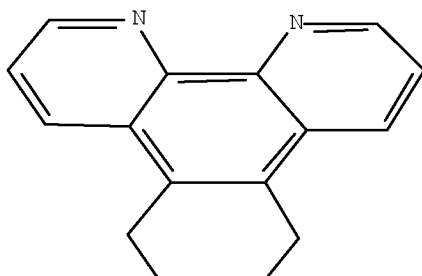
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(self-assembled phenanthroline substituted fullerene monolayers on a gold substrate)

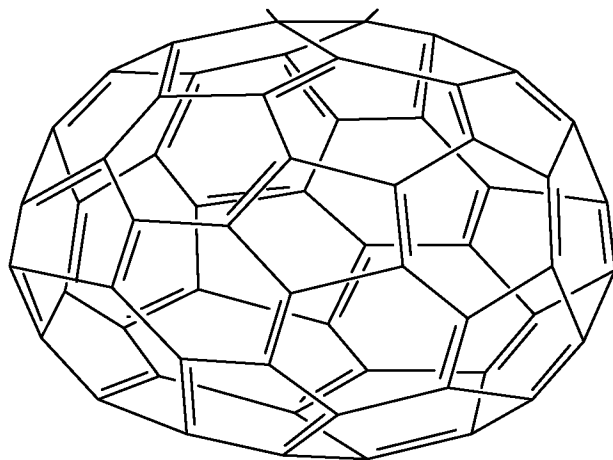
RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A



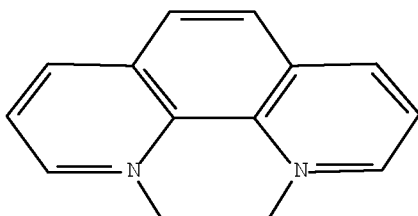
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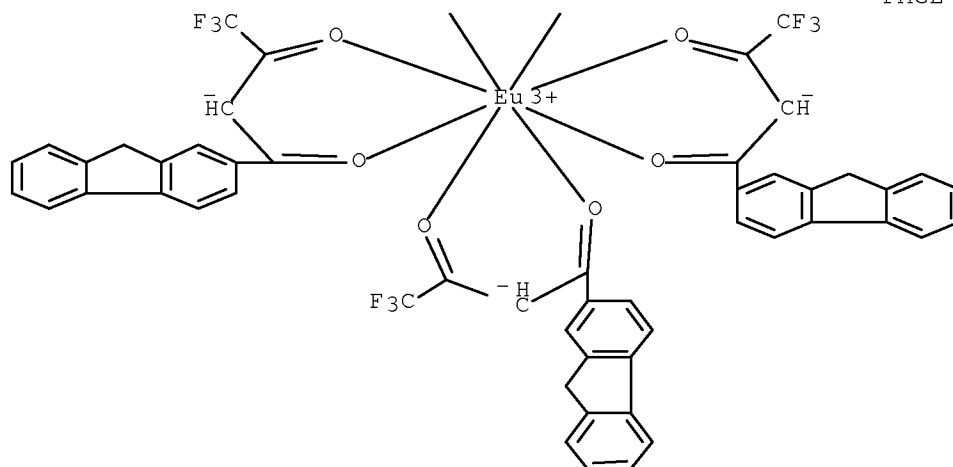


ALL CITATIONS AVAILABLE IN THE RE FORMAT

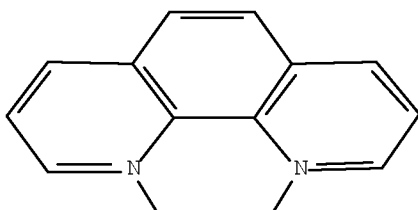
L4 ANSWER 104 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Eu complexes with β -diketone ligands were synthesized and characterized using luminescence spectroscopy. Complexes with fluorene show high fluorescence in THF solution and exhibit a sharp emission peak at 615 nm. The authors have improved the energy transfer from the blue-emitting material (host) to the Eu complex (guest) by the synthesis of a new Eu complex which exhibits an absorption peak at lower energy with respect to the emission energy of the host. With respect to volatility, since some thin films of the complexes were not formed easily by vapor deposition, the authors have examined the thermal properties of the Eu complexes with phenanthroline derivs. The efficiency of the energy transfer and volatility of these complexes are discussed.
 AN 1998:57744 CAPLUS Full-text
 DN 128:148811
 TI Synthesis and luminescent properties of europium complexes
 AU Uekawa, M.; Miyamoto, Y.; Ikeda, H.; Kaifu, K.; Nakaya, T.
 CS Higashiasakawa Hachioji, 550-5, Research and Development Group, Oki Electric Industry Co., Ltd., Tokyo, 193, Japan
 SO Synthetic Metals (1997), 91(1-3), 259-262
 CODEN: SYMEDZ; ISSN: 0379-6779
 PB Elsevier Science S.A.
 DT Journal
 LA English
 IT 202460-58-0P 202460-59-1P 202460-60-4P
 202460-61-5P 202460-62-6P 202460-63-7P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation, luminescence, and thermal decomposition of)
 RN 202460-58-0 CAPLUS
 CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,4-trifluoro-1,3-butanedionato- κ O, κ O'] (1,10-phenanthroline- κ N1, κ N10)- (9CI) (CA INDEX NAME)

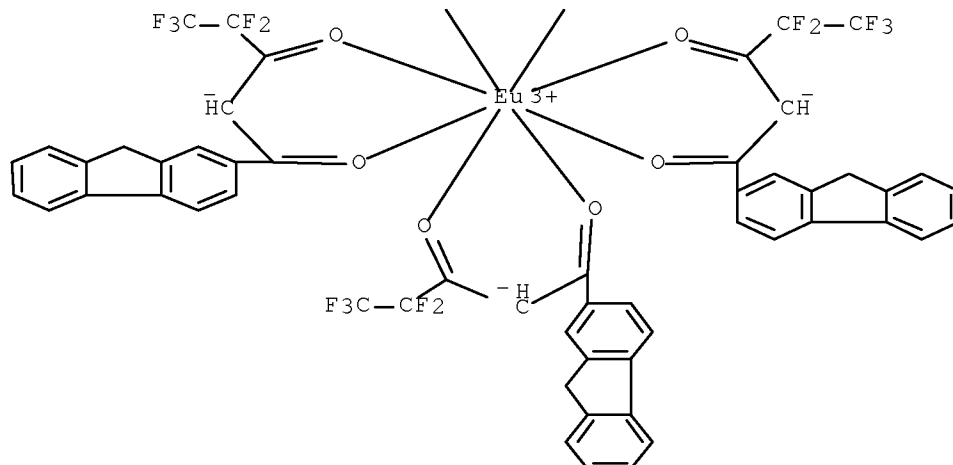
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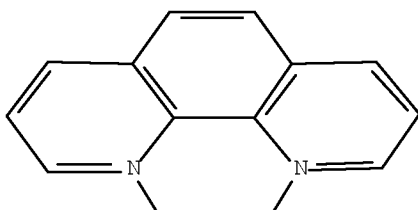
RN 202460-59-1 CAPLUS
 CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,5-pentafluoro-1,3-pentanedionato-κO,κO'] (1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

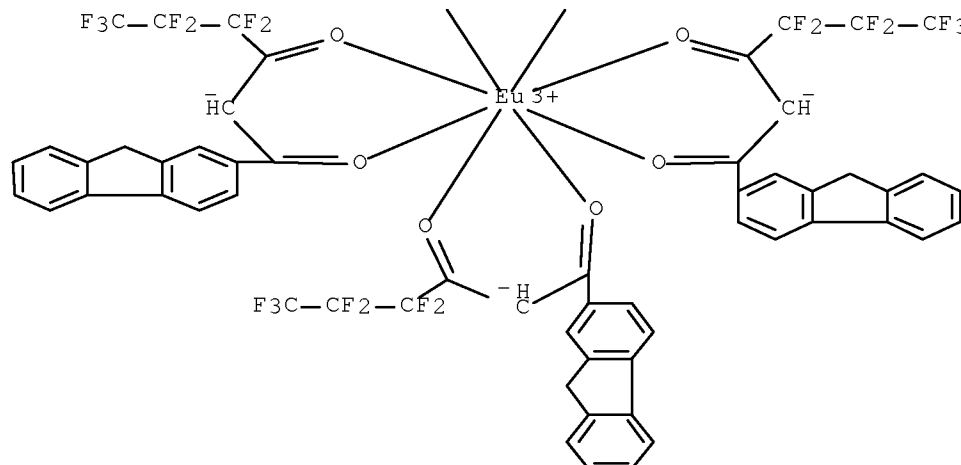




RN 202460-60-4 CAPLUS

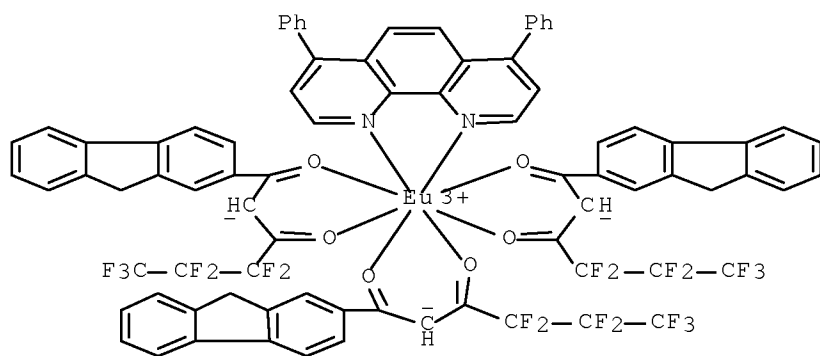
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato- κ O, κ O'] (1,10-phenanthroline- κ N1, κ N10)- (9CI) (CA INDEX NAME)





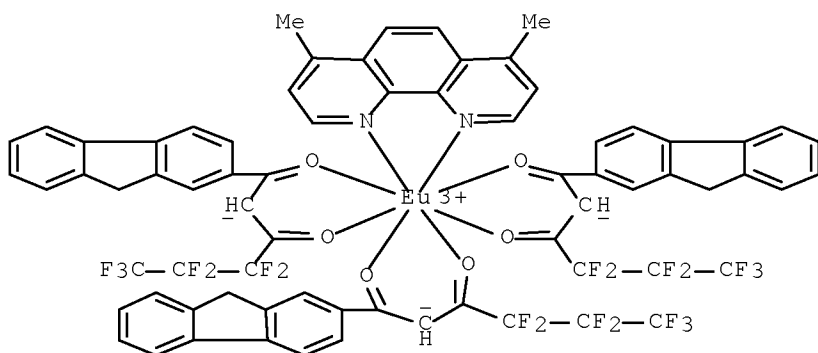
RN 202460-61-5 CAPLUS

CN Europium, (4,7-diphenyl-1,10-phenanthroline-κN1,κN10)tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO']- (9CI) (CA INDEX NAME)



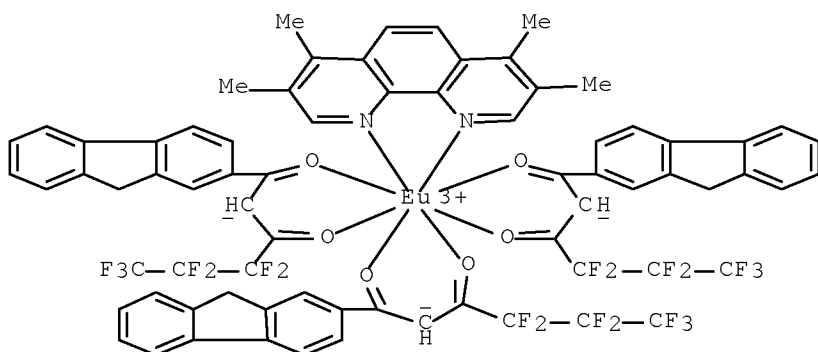
RN 202460-62-6 CAPLUS

CN Europium, (4,7-dimethyl-1,10-phenanthroline-κN1,κN10)tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO']- (9CI) (CA INDEX NAME)



RN 202460-63-7 CAPLUS

CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO'] (3,4,7,8-tetramethyl-1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 105 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB The macrocyclization between buckminsterfullerene, C₆₀, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C₆₀ with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C₆₀ under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same

method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH₂Cl₂ showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction. In CH₂Cl₂, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π -chromophore and a larger raise in LUMO energy in the former derivs.

AN 1997:727152 CAPLUS Full-text

DN 128:75385

TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives

AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice

CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.

SO Helvetica Chimica Acta (1997), 80(7), 2238-2276

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 128:75385

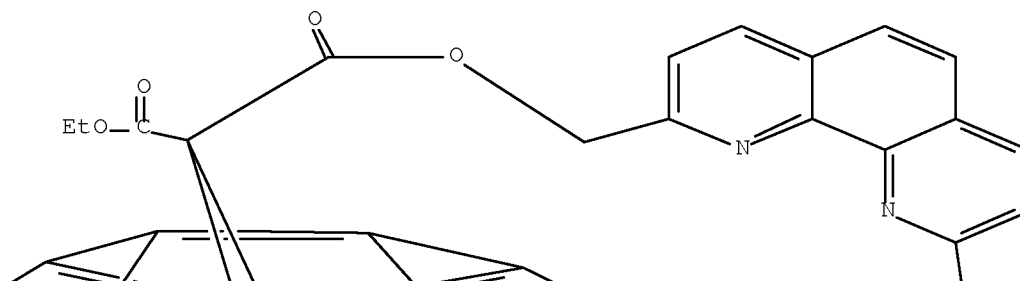
IT 200352-99-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

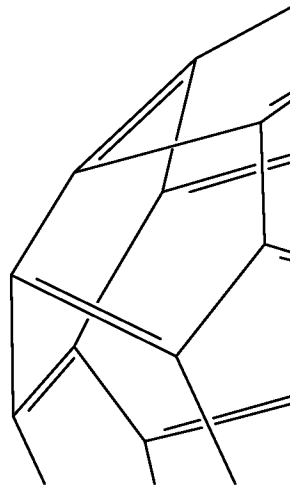
(preparation of fullerene dendrimers and multifunctionalized fullerenes by macrocyclization on fullerene core and redox properties thereof)

RN 200352-99-4 CAPLUS

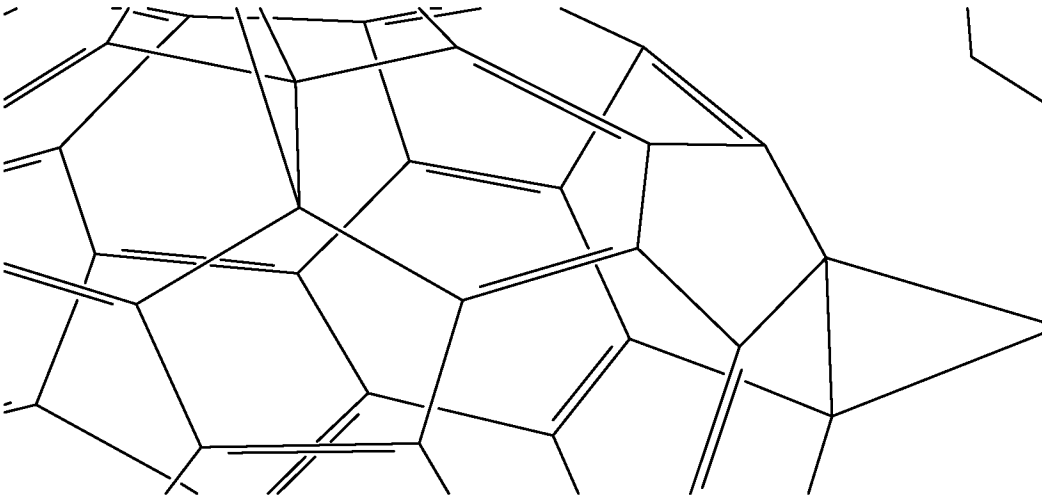
CN 3',3''-(Methanoxymethano[2,9][1,10]phenanthrolinomethanoxymethano)-3'H,3''H-dicyclopropa[1,9:16,17][5,6]fullerene-C60-1h-3',3''-dicarboxylic acid, 4',19'-dioxo-, diethyl ester (9CI) (CA INDEX NAME)

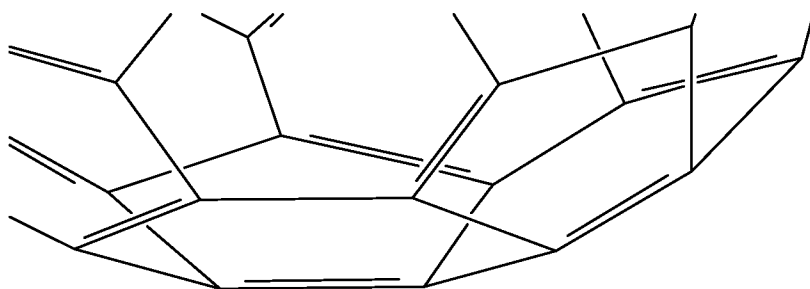
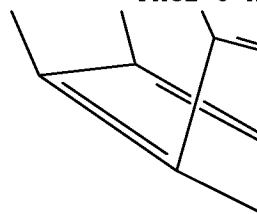
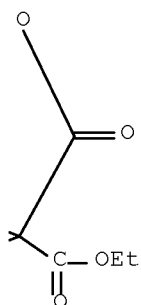


PAGE 2-A



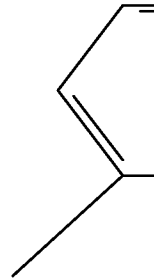
PAGE 2-B



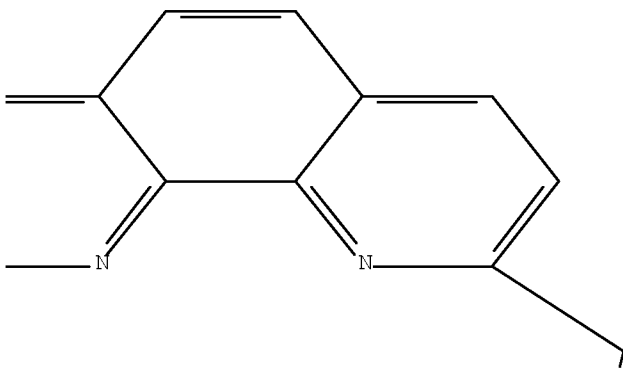


IT 200353-00-0P 200353-01-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of fullerene dendrimers and multifunctionalized fullerenes by
 macrocyclization on fullerene core and redox properties thereof)
 RN 200353-00-0 CAPLUS
 CN 3',3''-(Methanoxymethano[2,9][1,10]phenanthrolinomethanoxymethano)-
 3'H,3''H-dicyclopropa[1,9:32,33][5,6]fullerene-C60-1h-3',3''-dicarboxylic
 acid, 4',19'-dioxo-, diethyl ester (9CI) (CA INDEX NAME)

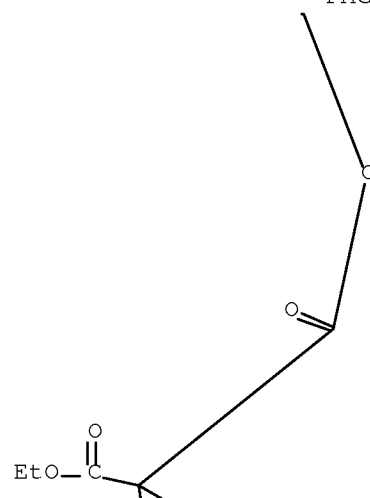
PAGE 1-A



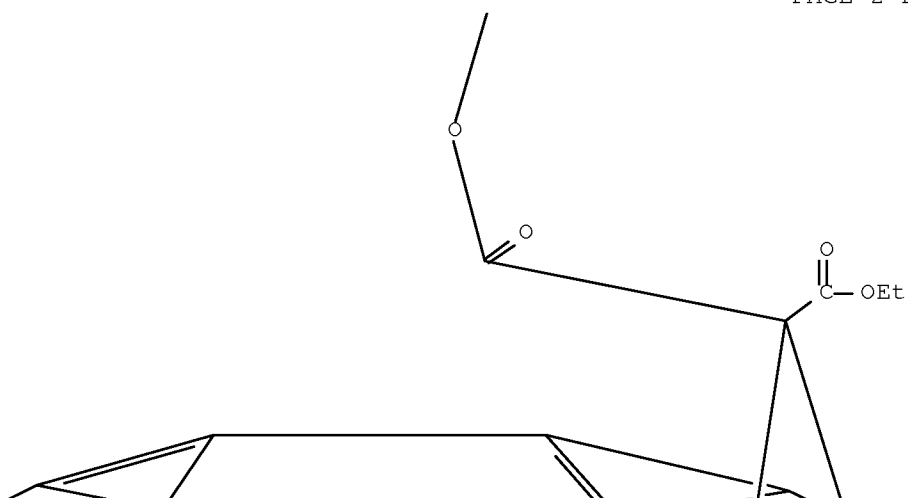
PAGE 1-B



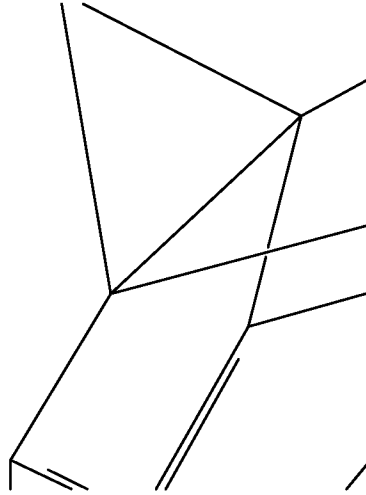
PAGE 2-A



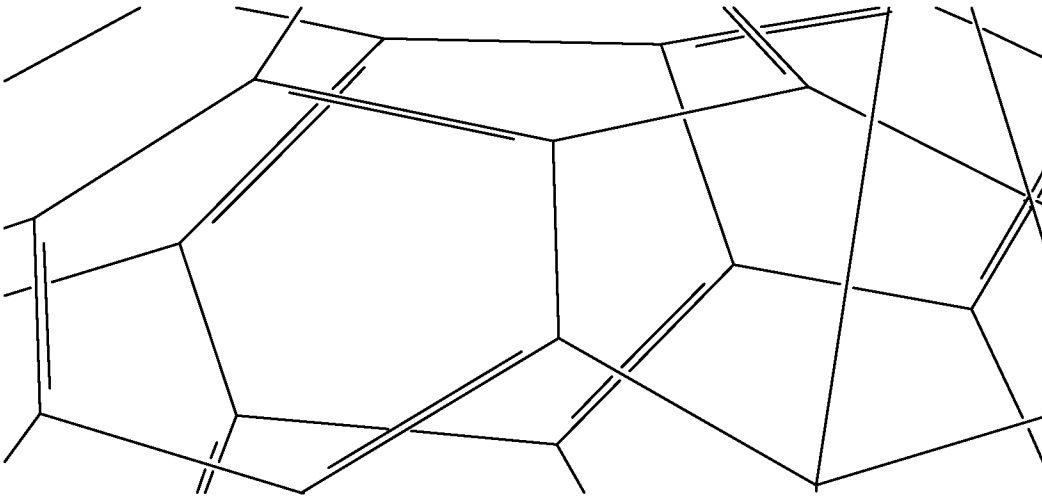
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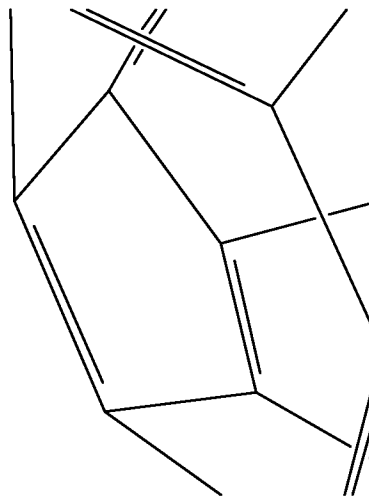
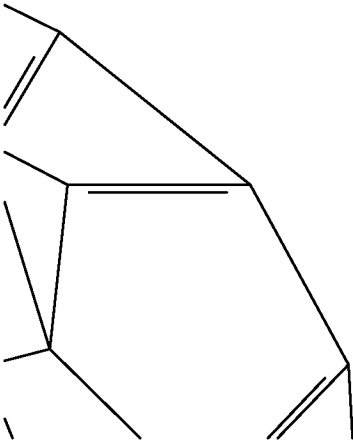


PAGE 3-A

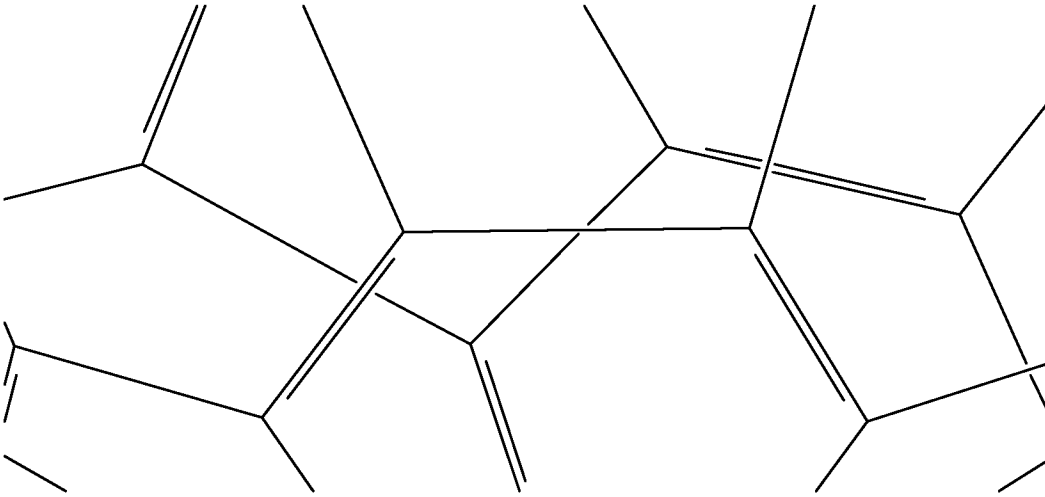


PAGE 3-B

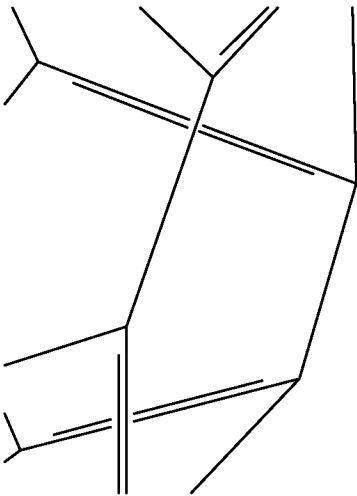




PAGE 4-B



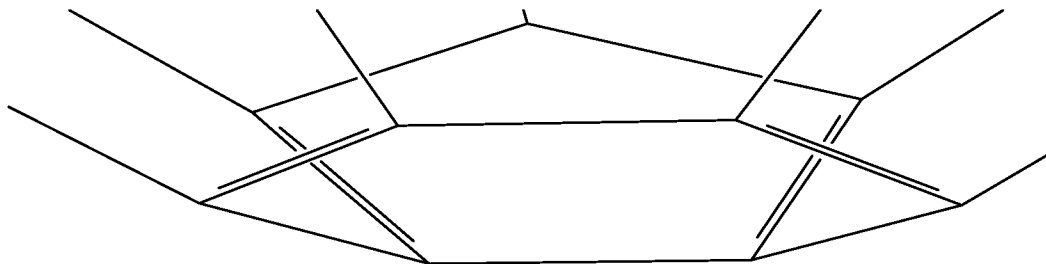
PAGE 4-C



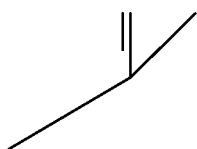
PAGE 5-A



PAGE 5-B

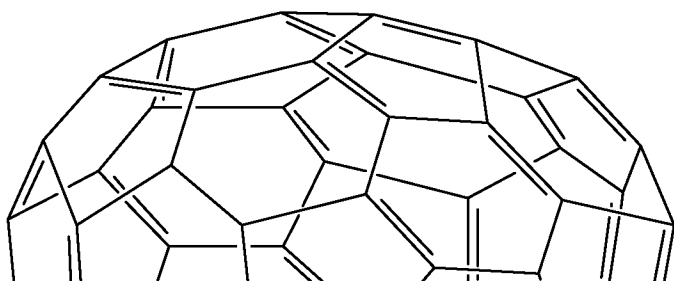


PAGE 5-C

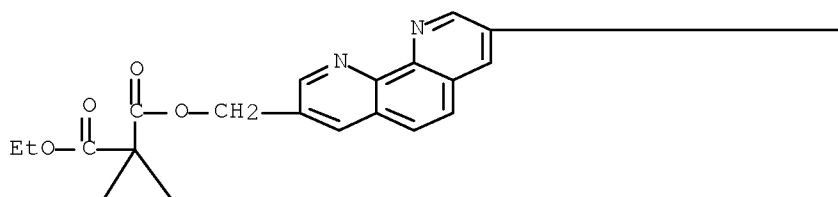


RN 200353-01-1 CAPLUS
CN 3'H-Cyclopropa[1,9:16,17][5,6]fullerene-C60-Ih-3',3'-dicarboxylic acid,
1,10-phenanthroline-3,8-diylbis(methylene) diethyl ester (9CI) (CA INDEX
NAME)

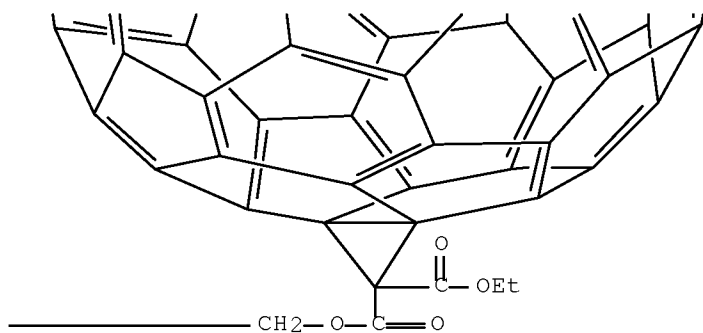
PAGE 1-B



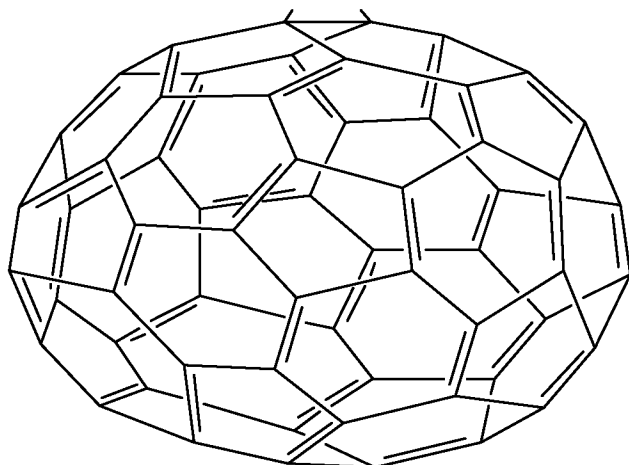
PAGE 2-A



PAGE 2-B



PAGE 3-A



L4 ANSWER 106 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Novel W and Mo complexes of fullerene $[M(\eta^2-C_{60})(CO)_2(phen)(dbm)] \cdot C_6H_6 \cdot C_5H_{12}$ (M = W 1 or Mo 2; dbm = di-Bu maleate; phen = 1,10-phenanthroline) were synthesized by heating a solution of C60 with $[M(CO)_4(phen)]$ and dbm in toluene followed by chromatog. over silica gel. They were characterized by chemical anal., IR, UV/visible, 1H and ^{13}C NMR spectroscopy and single-crystal x-ray diffraction anal. The complexes are isomorphous. The metal atom coordination is distorted octahedral with the two CO groups and phen in the equatorial plane and the metal binds in an η^2 fashion to C-C bonds of C60 and dbm. Both complexes are remarkably stable in air and have unusually good solubility

AN 1997:708146 CAPLUS Full-text

DN 127:358923

TI Syntheses and structural characterizations of novel tungsten and molybdenum complexes of fullerene $[M(\eta^2-C_{60})(CO)_2(phen)(dbm)] \cdot 2C_6H_6 \cdot C_5H_{12}$ (M = W or Mo, phen = 1,10-phenanthroline, dbm = dibutyl maleate)

AU Tang, Kaluo; Zheng, Shijun; Jin, Xianglin; Zeng, Hui; Gu, Zhennan; Zhou, Xihuang; Tang, Youqi

CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China

SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (19), 3585-3587

CODEN: JCDTBI; ISSN: 0300-9246

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 127:358923

IT 198712-80-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; preparation and structure of tungsten and molybdenum fullerene complexes with phenanthroline and di-Bu maleate)

RN 198712-80-0 CAPLUS

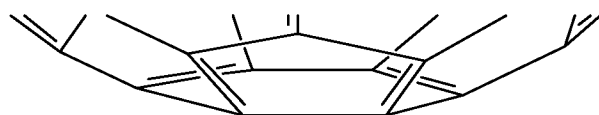
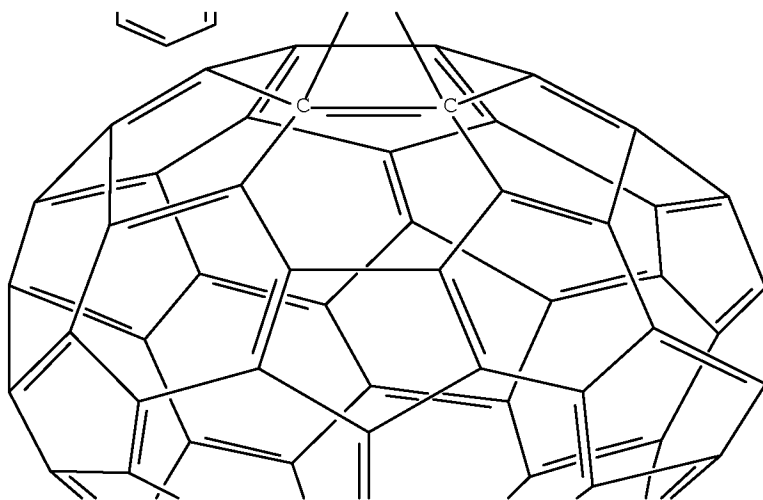
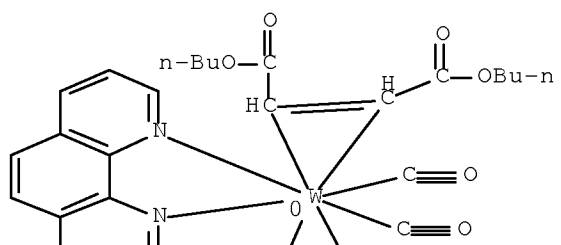
CN Tungsten, dicarbonyl[(2,3- η)-dibutyl 2-butenedioate][(1,9- η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline- $\kappa N1, \kappa N10$)-, stereoisomer, compd. with benzene and pentane (1:2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 198712-79-7

CMF C86 H28 N2 O6 W

CCI CCS



CRN 109-66-0
CMF C5 H12



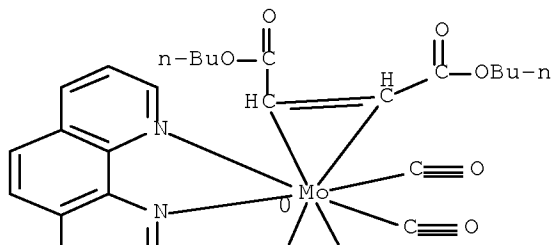
CM 3

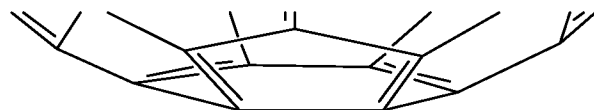
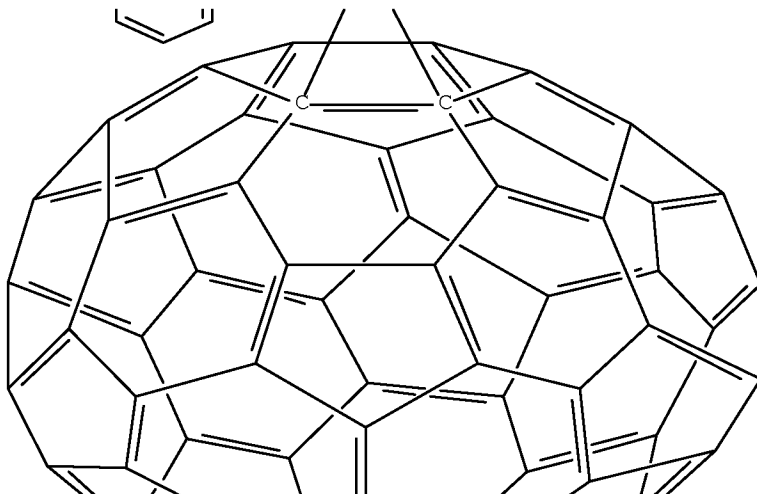
CRN 71-43-2
CMF C6 H6



IT 198712-81-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and structure of tungsten and molybdenum fullerene complexes
with phenanthroline and di-Bu maleate)
RN 198712-81-1 CAPLUS
CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl 2-butenedioate][(1,9- η)-
[5,6]fullerene-C60-1h](1,10-phenanthroline- κ N1, κ N10)-,
stereoisomer (9CI) (CA INDEX NAME)

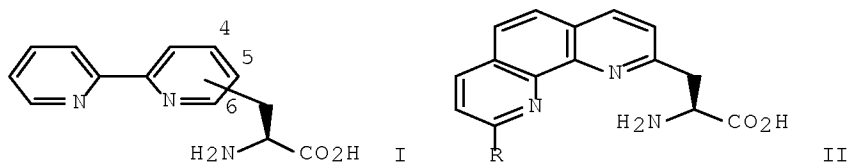
PAGE 1-A





RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 107 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

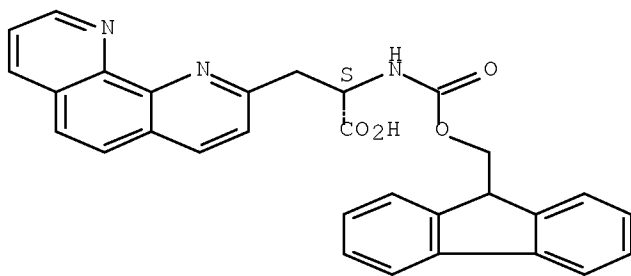


AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α -amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α -amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrolyl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid

β -carbon are observed. Addnl., the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation consts. ranging from 10^{-3} to $<10^{-6}$ M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

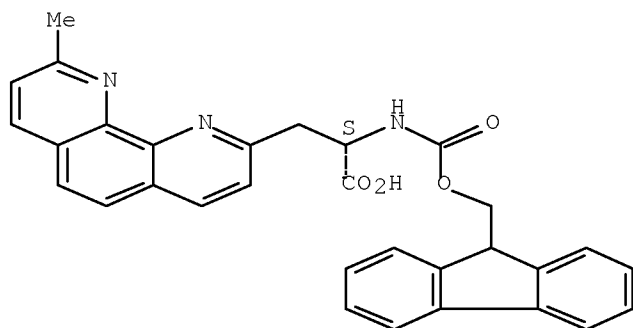
AN 1996:657128 CAPLUS Full-text
 DN 126:19209
 TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural Amino Acids and Peptide Secondary Structure
 AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara
 CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
 SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 126:19209
 IT 176435-49-7P 184152-94-1P
 RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and metal binding of bipyridylalanine- and phenanthrolylalanine-containing peptides)
 RN 176435-49-7 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 184152-94-1 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-9-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 108 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Using std. synthetic or electrosynthetic techniques the authors prepd. five previously unreported fullerene derivs. Three of these are bis-aza-homofullerene (also known as aza-fulleroid) derivs. that contain a crown ether directly fused to the C60 moiety. Preliminary electrochem. results with these compds. show that complexation with alkali metal ions leads to strong effects in their voltammetric responses. A new methanofullerene, compound was prepared by the reaction of C60²⁻, generated electrochem., with I2CH(t-butyl). This is the 1st time that methanofullerenes were prepared electrosynthetically. Other similar derivs. were prepared using the same technique, to probe the mechanism of the reaction. Results suggest a single electron transfer (SET) mechanism. Finally, a phenanthrolyl[60]fullerene was prepared directly by reacting the corresponding 9,10-bis(bromomethyl)phenanthroline with C60 in the presence of I⁻.

AN 1996:570704 CAPLUS Full-text

DN 125:300977

TI Synthesis and electrosynthesis of methano[60]fullerenes, bis-aza-fulleroid crown ethers, and phenanthrolyl[60]fullerene

AU Arias, Francisco; Boulas, Pierre; Zuo, Yuhong; Dominguez, Olaf; Gomez-Kaifer, Marielle; Echegoyen, Luis

CS Dep. Chem., Univ. Miami, Coral Gables, FL, 33124, USA

SO Proceedings - Electrochemical Society (1996), 96-10 (Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials, Vol. 3), 165-176

CODEN: PESODO; ISSN: 0161-6374

PB Electrochemical Society

DT Journal

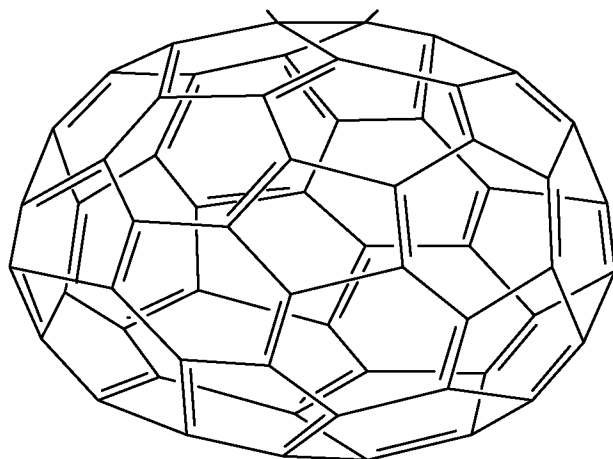
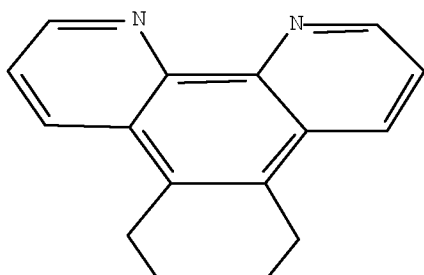
LA English

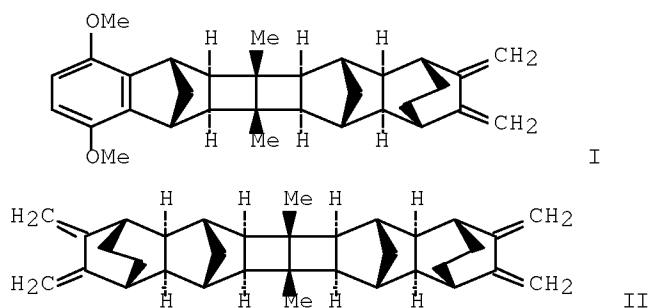
IT 182760-72-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-1h-[1',9':6,7]benzo[f][1,10]phenanthroline,
5',8'-dihydro- (9CI) (CA INDEX NAME)





AB Diels-Alder reaction of C60 with 1,3-dienes, e.g. I, affords "ball-and-chain" systems bearing two chromophores linked via a rigid, hybrid saturated polynorbornane-bicyclo[2.2.0]hexane ("norbornylogous") hydrocarbon bridge. Analogous reaction with the bis(diene) II affords a soluble dumbbell system bearing two C60 chromophores. The norbornylogous bridge is a strong mediator of electron and energy transfer via a through-bond coupling mechanism. The X-ray structure of a dimethoxybenzene-bridge-C60 system reveals favorable self-complementarity manifested by the unusual packing structure in the crystal. Mol. mechanics, semiempirical, and ab initio conformational analyses of some of these compds. (MM2, Sybyl, CVFF, AM1, HF/3-21G) were performed to quantify their ability to adopt two nondegenerate boat conformations, i.e., extended and folded conformers, as well as their kinetic barrier of interconversion. A similar treatment of the C60-bridge-C60 system prepared from II revealed unusual preference for the folded-folded conformer (18.9 kcal/mol at CVFF level), which was not reproduced by the AM1 method (0.11 kcal/mol). The reduction potentials of the systems were about 0.1-0.5 V more neg. than C60, and the third reduction potential (E3) of a 6-bond system was 0.14 V more neg. than the corresponding wave for a 10-bond system.

AN 1996:401828 CAPLUS Full-text

DN 125:194922

TI Synthesis of a Variety of Bichromophoric "Ball-and-Chain" Systems Based on Buckminsterfullerene (C60) for the Study of Intramolecular Electron and Energy Transfer Processes

AU Lawson, James M.; Oliver, Anna M.; Rothenfluh, Daniel F.; An, Yi-Zhong; Ellis, George A.; Ranasinghe, Millagahamada G.; Khan, Saeed I.; Franz, Andreas G.; Ganapathi, Padma S.; et al.

CS School of Chemistry, University of New South Wales, Sydney, 2052, Australia

SO Journal of Organic Chemistry (1996), 61(15), 5032-5054

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

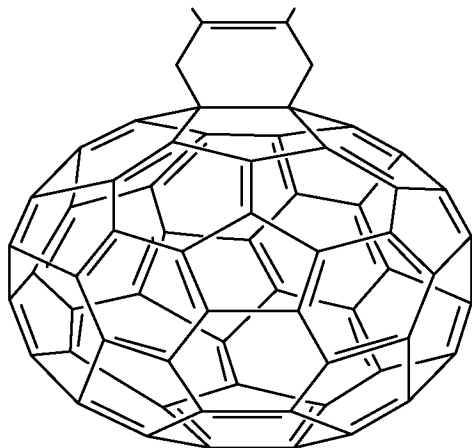
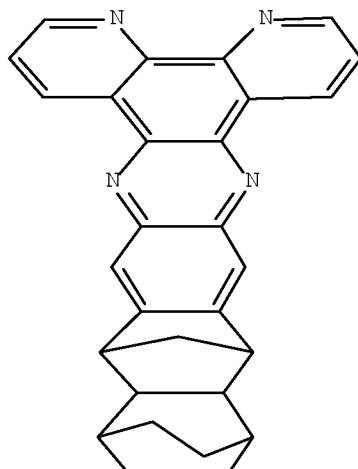
LA English

IT 180396-42-3P 180396-49-0P

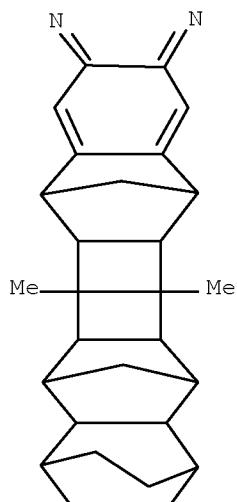
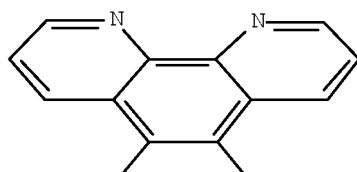
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(intramol. electron and energy transfer in bichromophoric
ball-and-chain systems based on buckminsterfullerene)

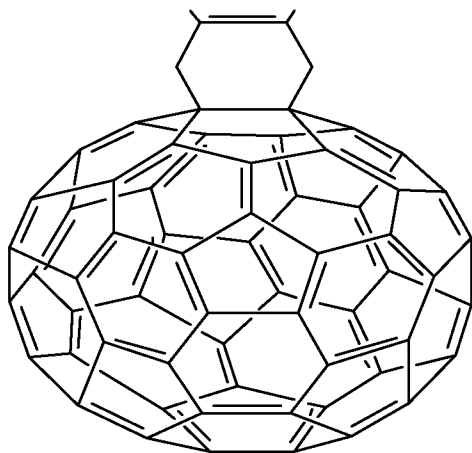
RN 180396-42-3 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',2':14,15][12,17]ethano[11,18]methanoanthra[2,3-i]dipyrido[3,2-a:2',3'-c]phenazine, 11',11'a,12',13',16',17',17'a-octahydro-, (11' α ,11'a β ,12' α ,17, α ,17'a β ,18'.al pha.)- (9CI) (CA INDEX NAME)



RN 180396-49-0 CAPLUS
 CN [5,6]Fullereno-C60-Ih-[1',2':15,16][13,18]ethano[11,20:12,19]dimethanoanth
 ra[2''',3''':3'',4'']cyclobuta[1'',2'':3',4']cyclobuta[1',2':4,5]benzo[1,2-
 i]dipyrido[3,2-a:2',3'-c]phenazine, 11',11'a,11'b,11'c,12',12'a,13',14',17
 ',18',18'a,19',19'a,19'b,19'c,20'-hexadecahydro-11'b,19'b-dimethyl-,
 (11' α ,11'a β ,11'b α ,11'c β ,12' α ,12'a β ,13'.a1
 pha.,18' α ,18'a β ,19' α ,19'a β ,19'b α ,19'c β ,20
 'a)-(9CI) (CA INDEX NAME)



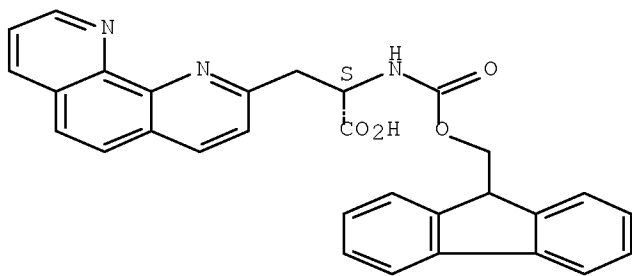


L4 ANSWER 110 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 AB An iterative design process involving the synthesis and structural analyses of five polypeptides patterned after the zinc finger domains is described. This process has led to the development of a metal-independent 23-residue folded $\beta\beta\alpha$ peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthrol-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is $0.9 \pm 0.3 \text{ \AA}$. Anal. of the resulting structure reveals that the α -helix and β -hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β -hairpin formation; a control peptide, in which the β -turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text
 DN 124:317843
 TI Economy in Protein Design: Evolution of a Metal-Independent $\beta\beta\alpha$ Motif Based on the Zinc Finger Domains
 AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara
 CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
 SO Journal of the American Chemical Society (1996), 118(13), 3073-81
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 IT 176435-49-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and conformation of metal-free zinc finger peptide model)
 RN 176435-49-7 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[(9H-fluoren-9-

ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L4 ANSWER 111 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A series of receptors were prep'd. all contg. two adenine binding sites linked by various spacers. Their ability to act as templates in the coupling of two adenine derivs., an active ester and an amine, in CHCl₃ was evaluated. The accelerations varied from none to 700-fold. Binding studies of the coupling product with these templates confirmed involvement of both binding sites. When the spacer was a 1,10-phenanthroline unit, an efficient hydrolysis reaction of the active ester was observed. Another series of receptors were prepared containing one adenine receptor and various polar functional groups. The mols. were evaluated as catalysts in the coupling of an adenine-derived active ester and n-butylamine. The orientation as well as the nature of the functional group greatly influenced the coupling rate. A carboxylate group was most effective, accelerating the intracomplex reaction 250-fold.

AN 1995:653636 CAPLUS [Full-text](#)

DN 123:256408

TI Passive template effects and active acid-base involvement in catalysis of organic reactions

AU Pieters, Roland J.; Huc, Ivan; Rebek, Julius, Jr.

CS Dep. Chemistry, Massachusetts Inst. Technol., Cambridge, MA, 02139, USA

SO Chemistry--A European Journal (1995), 1(3), 183-92 Published in:

Angew. Chem., Int. Ed. Engl., 34(11)

CODEN: CEUJED; ISSN: 0947-6539

PB VCH

DT Journal

LA English

IT 168127-43-3F

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

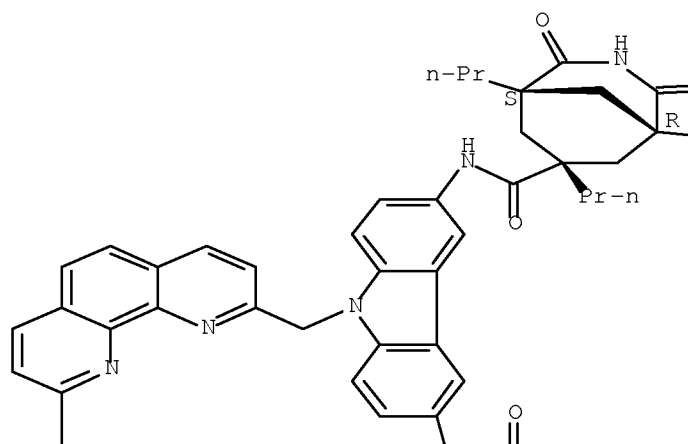
(preparation and template effect of adenine-containing receptors)

RN 168127-43-3 CAPLUS

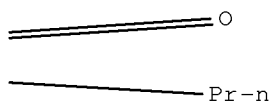
CN 3-Azabicyclo[3.3.1]nonane-7-carboxamide, N,N',N'',N'''-[1,10-phenanthroline-2,9-diylbis(methylene-9H-carbazole-9,3,6-triyl)]tetrakis[2,4-dioxo-1,5,7-tripropyl-, (all-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

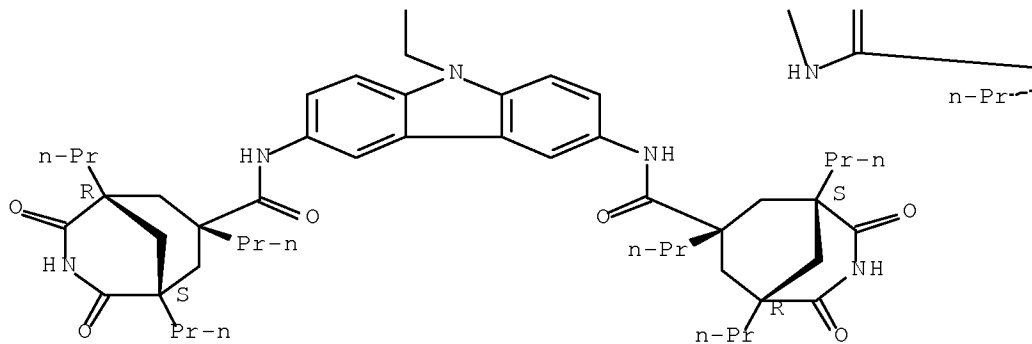
PAGE 1-A

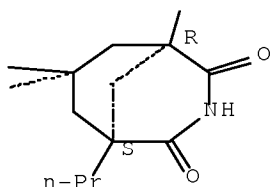


PAGE 1-B

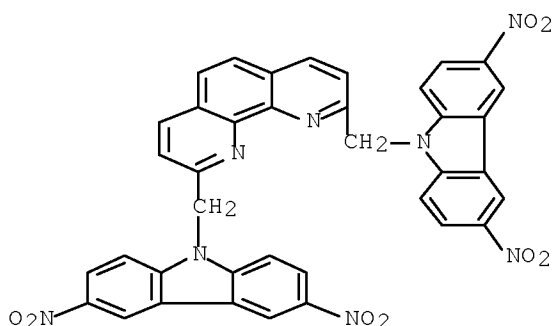


PAGE 2-A





IT 168127-48-8F
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and template effect of adenine-containing receptors)
 RN 168127-48-8 CAPLUS
 CN 1,10-Phenanthroline, 2,9-bis[(3,6-dinitro-9H-carbazol-9-yl)methyl]- (CA
 INDEX NAME)



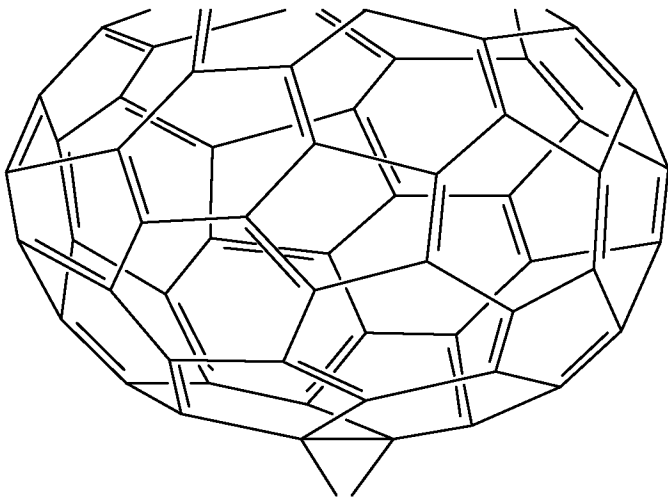
L4 ANSWER 112 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 AB A three-component complex consisting of a coordinating ring, a copper(I)
 center and a difunctionalized fragment threaded inside the ring is reacted
 with a C60 derivative to afford a soluble rotaxane with two fullerenes as
 stoppers in 15% yield.
 AN 1995:510099 CAPLUS Full-text
 DN 122:305209
 TI A copper(I)-complexed rotaxane with two fullerene stoppers
 AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten,
 Jean-Francois; Sauvage, Jean-Pierre
 CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
 SO Journal of the Chemical Society, Chemical Communications (1995), (7),
 781-2
 CODEN: JCCCAT; ISSN: 0022-4936
 PB Royal Society of Chemistry
 DT Journal
 LA English
 IT 163236-30-4F
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (copper(I)-complexed rotaxane with two fullerene stoppers)

RN 163236-30-4 CAPLUS
 CN Copper(1+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

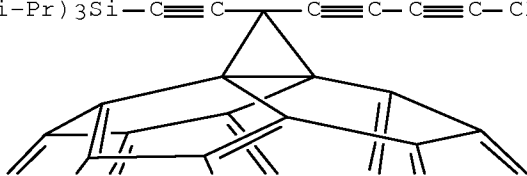
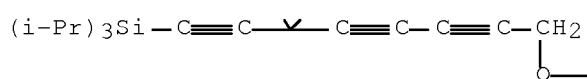
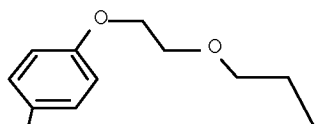
CM 1

CRN 162994-22-1
 CMF C210 H90 Cu N4 O7 Si2
 CCI CCS

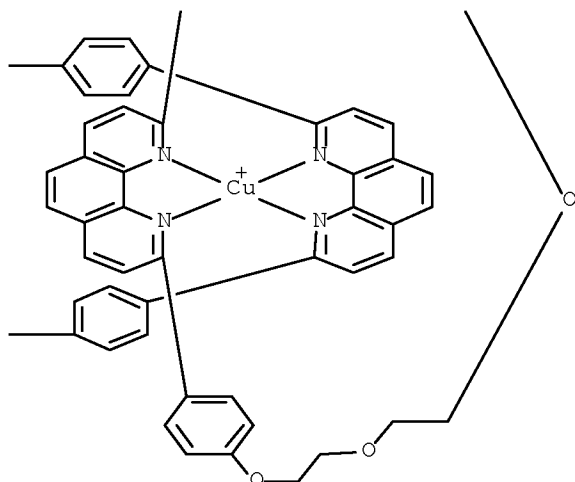
PAGE 1-A



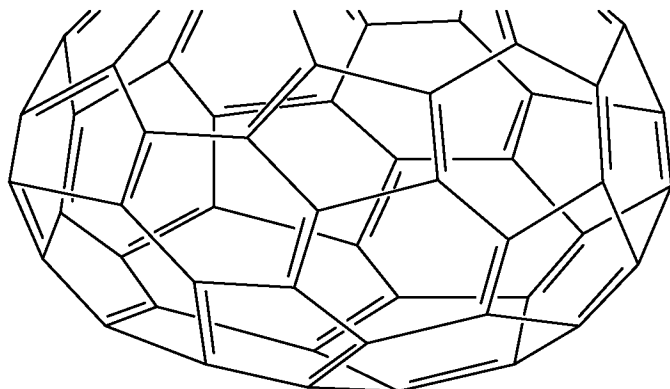
PAGE 2-A



PAGE 3-B



PAGE 4-A

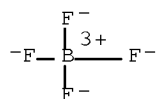


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 163236-31-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 163236-31-5 CAPLUS

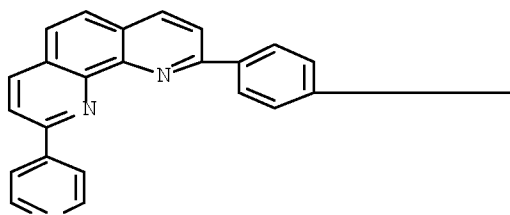
CN 2,29:3,6:20,23:24,26-Tetraetheno-7,10,13,16,19,1,25-
 benzopentaoxadiazacycloheptacosine, 8,9,11,12,14,15,17,18-octahydro-,
 compd. with 2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-
 cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-
 1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

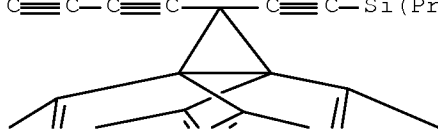
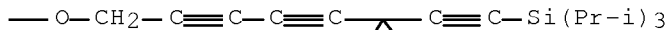
CRN 162994-21-0

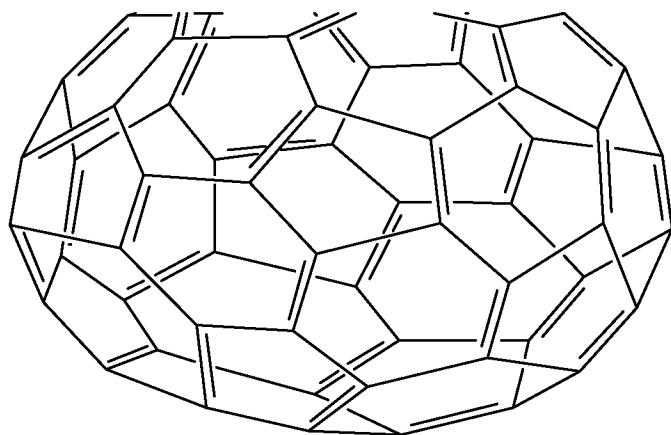
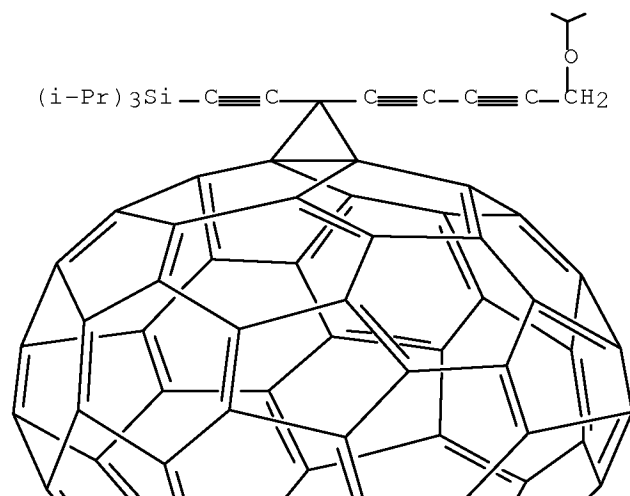
CMF C178 H60 N2 O2 Si2

PAGE 1-A



PAGE 1-B

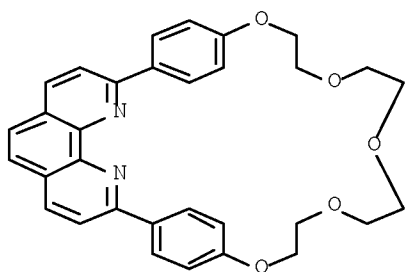




CM 2

CRN 89333-98-2

CMF C32 H30 N2 O5



L4 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The photoreceptors comprise a conductive substrate with a coating of a photosensitive layer containing ≥ 1 of dipyrrophenanthroline-type bisazo compds. I, II, and III (A = coupler residue; R1, R2 = H, halo, alkyl, aryl) as a charge-generating agent. The photoreceptors show high photosensitivity and good durability. Thus, an Al vapor-deposited polyester film was coated with a composition containing I (A = IV) and 1-phenyl-3-(p-diethylaminostyryl)-5-(p-diethylaminophenyl)-2-pyrazoline to give a photoreceptor.

AN 1995:169535 CAPLUS Full-text

DN 122:118927

TI Electrophotographic photoreceptors using dipyrrophenanthroline-type bisazo compound as charge-generating agent

IN Yamazaki, Mikio; Amano, Masayo; Kosho, Noboru

PA Fuji Electric Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 06202356	A	19940722	JP 1992-347401	19921228
				JP 1992-347401	19921228

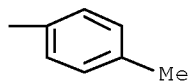
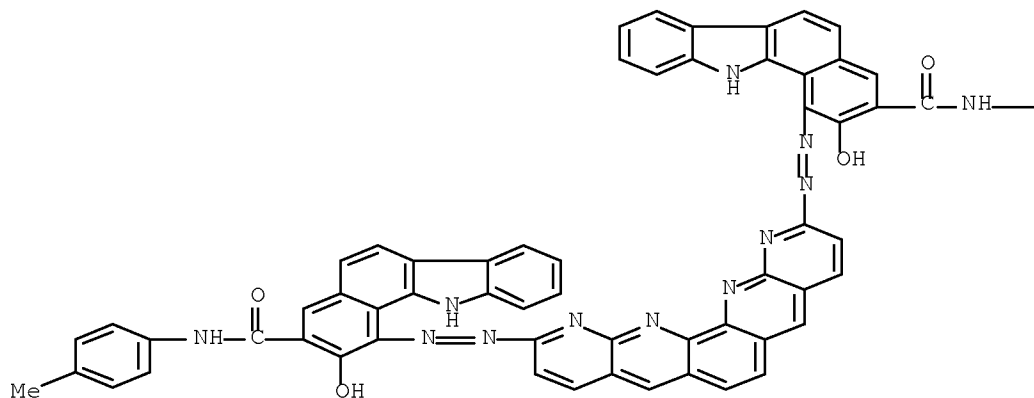
IT 160771-38-0 160771-42-6

RL: DEV (Device component use); USES (Uses)

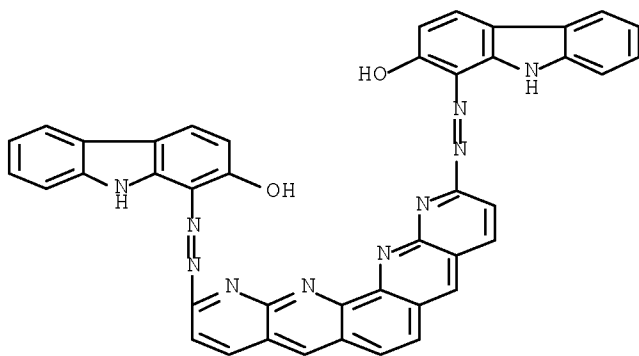
(electrophotog. photoreceptor using dipyrrophenanthroline bisazo compound as charge-generating agent)

RN 160771-38-0 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[dipyrido[2,3-b:3',2'-j][1,10]phenanthroline-2,11-diylbis(azo)]bis[2-hydroxy-N-(4-methylphenyl)-(9CI) (CA INDEX NAME)



RN 160771-42-6 CAPLUS
 CN 9H-Carbazol-2-ol, 1,1'-[dipyrido[2,3-b:3',2'-j][1,10]phenanthroline-2,11-diylbis(azo)]bis- (9CI) (CA INDEX NAME)

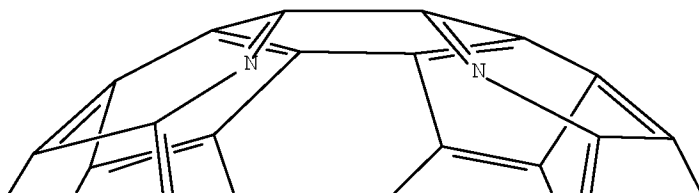


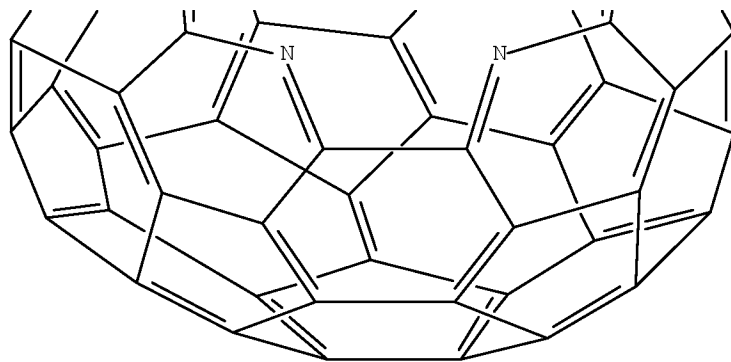
L4 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Substituting C atoms of fullerenes by heteroatoms and vacancies will lead to new and yet unknown spherically-shaped mols. termed heterofullerenes. The enormous structural diversity of these mols. is examined and their structural, electronic, and thermochem. properties are predicted using semiempirical computations. Computational results for complexes with ions lead to the hypothesis that these mols. behave like microscopic Faraday cages in which the

electrons concentrate on the outer side of the sphere. It is predicted that some of these heterofullerenes are structurally and electronically similar to phthalocyanines and related mols. but offer many addnl. advantages. Potential uses such as adding heterofullerenes to fullerene materials, as superior starting materials for the fabrication of diamonds, as catalysts in hydrogenation reactions, as components of materials dominated until now by phthalocyanines, etc., are discussed. Simple synthetic routes to these compds. that are based on minor alterations of existing methods for fullerene production are proposed. Thermochem. calcns. show that the most promising possibility consists of using metal cyanide/graphite composite target rods instead of pure graphite rods as in a conventional fullerene synthesis.

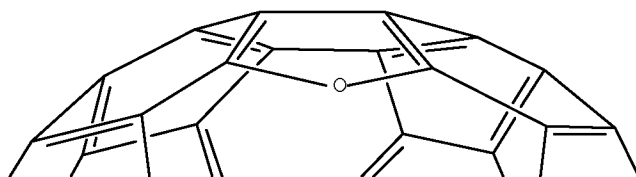
AN 1993:427631 CAPLUS Full-text
 DN 119:27631
 TI Heterofullerenes: structure and property predictions, possible uses and synthetic proposals
 AU Karfunkel, Heinrich R.; Dressler, Thomas; Hirsch, Andreas
 CS Ciba-Geigy AG, Basel, CH-4002, Switz.
 SO Journal of Computer-Aided Molecular Design (1992), 6(5), 521-35
 CODEN: JCADEQ; ISSN: 0920-654X
 DT Journal
 LA English
 IT 147270-26-6D, Tetraaza[5,6,12]fullerene-C58, metal complexes
 RL: PRP (Properties)
 (MO calcns. of, as models for truncated tetrazafullerenes)
 RN 147270-26-6 CAPLUS
 CN 2,5,8,10-Tetraaza-1,9-dinor[5,6]fullerene-C60-Ih (CA INDEX NAME)

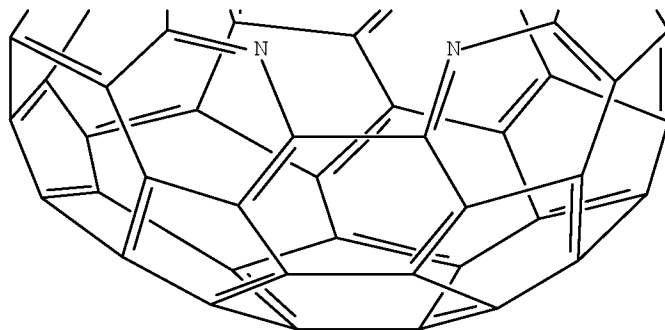
PAGE 1-A



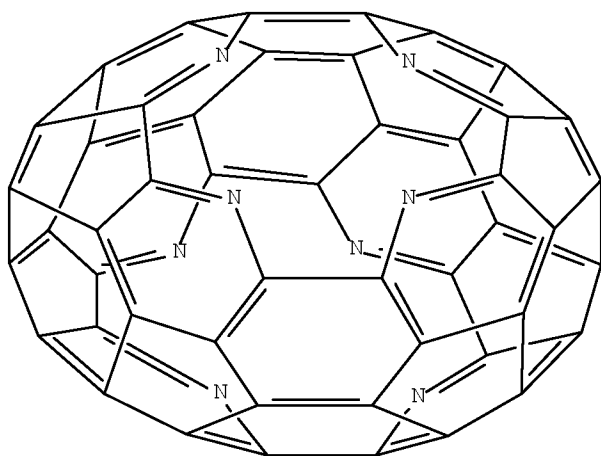


IT 147270-28-3P, Oxadiaza[5,6,11]fullerene-C59 147321-16-2P
 , Octaaza[5,6,12]fullerene-C56 147321-17-3P,
 Tetraoxatetraaza[5,6,12]fullerene-C56 147350-88-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (structure and property predictions, possible uses, and preparation of, MO
 and mol. mech. calcns. and)
 RN 147270-28-8 CAPLUS
 CN 9-Oxa-2,5-diaza-1-nor[5,6]fullerene-C60-1h (CA INDEX NAME)

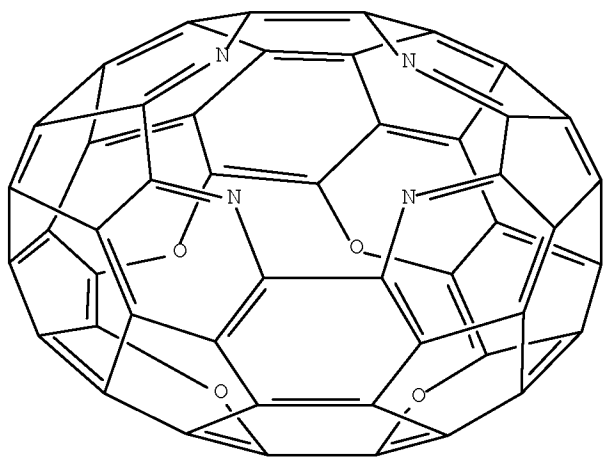




RN 147321-16-2 CAPLUS
 CN 2,5,8,10,51,53,56,59-Octaaza-1,9,52,60-tetranor[5,6]fullerene-C60-Ih (9CI)
 (CA INDEX NAME)

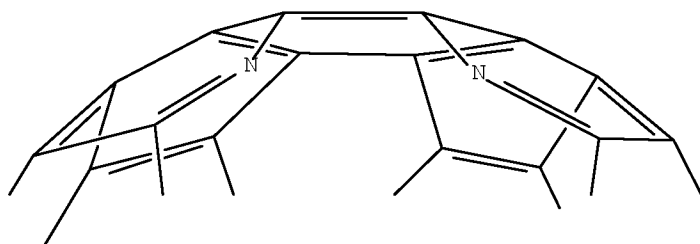


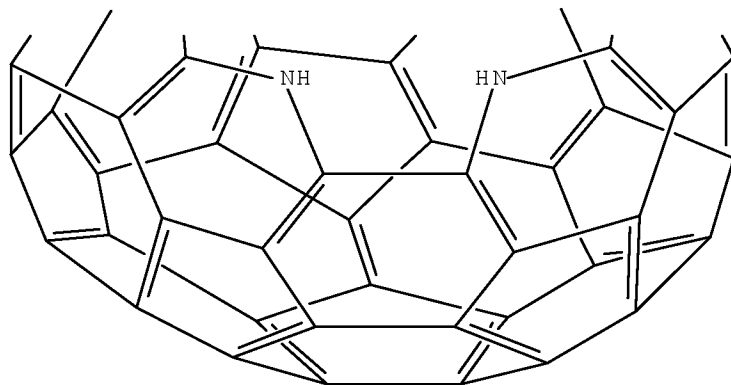
RN 147321-17-3 CAPLUS
 CN 2,5,8,10-Tetraoxa-51,53,56,59-tetraaza-1,9,52,60-tetranor[5,6]fullerene-
 C60-Ih (9CI) (CA INDEX NAME)



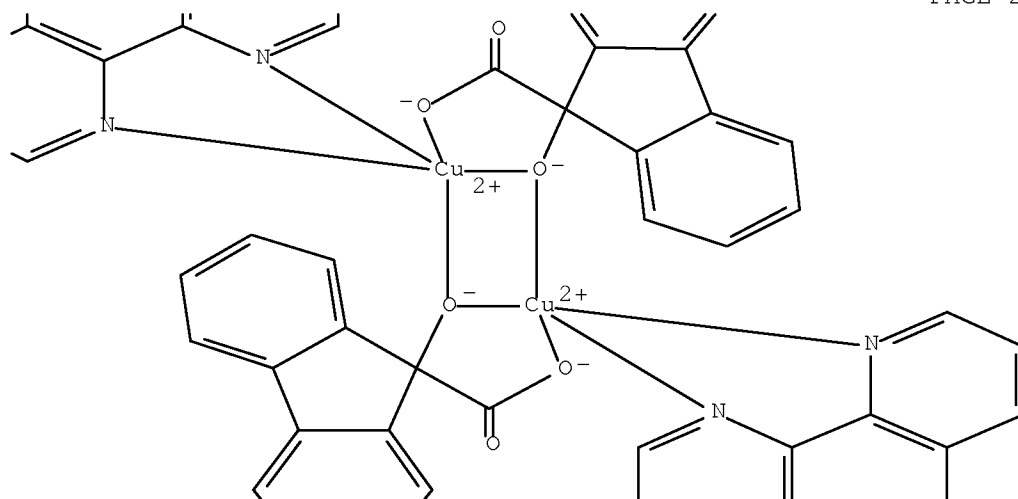
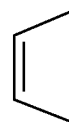
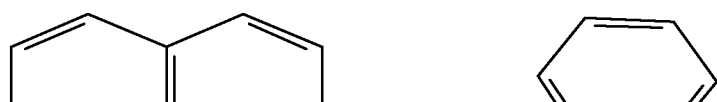
RN 147350-88-7 CAPLUS
 CN 2,5,8,10-Tetraaza-1,9-dinor[5,6]fullerene-C₆₀-Ih, 2,5-dihydro- (9CI) (CA
 INDEX NAME)

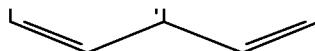
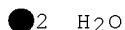
PAGE 1-A



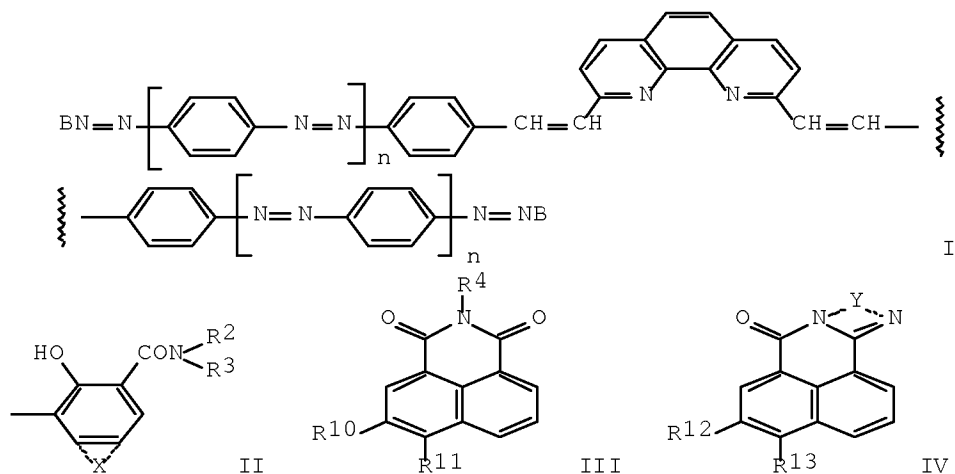


L4 ANSWER 115 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The title compd. is monoclinic, space group P21/n, with a 9.101(2), b 20.681(3), c 11.101(1) Å, and β 93.55(2)°; Z = 2, dc = 1.55, R = 0.039 for 3064 reflections. Atomic coordinates are given. Every Cu atom is square pyramidally coordinated by 3 O atoms and 2 N atoms. The 2 Cu atoms are connected to 2 bridging OH O atoms to form a CuII binuclear unit with a Cu₂O₂ core. The binuclear unit as a whole possesses a center of symmetry with a Cu...Cu distance of 3.016 Å.
 AN 1992:437256 CAPLUS Full-text
 DN 117:37256
 TI Structure of a copper complex of an α -hydroxylated acid:
 bis[μ -(9-hydroxy-9H-fluorene-9-carboxylato-O, μ -O')]-bis(1,10-phenanthroline)copper(II)]
 AU Liu, Shixiong; Yu, Yunpeng
 CS Inst. Struct. Chem., Fuzhou Univ., Fuzhou, 350002, Peop. Rep. China
 SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(4), 652-5
 CODEN: ACSCEE; ISSN: 0108-2701
 DT Journal
 LA English
 IT 142213-84-1
 RL: PRP (Properties)
 (crystal structure of)
 RN 142213-84-1 CAPLUS
 CN Copper, bis[μ -[9-hydroxy-9H-fluorene-9-carboxylato(2-)]]bis(1,10-phenanthroline-N1,N10)di-, dihydrate, stereoisomer (9CI) (CA INDEX NAME)





L4 ANSWER 116 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB A photoconductive layer, which contains an azo deriv. I [$n = 0, 1$; B = II, III, IV (X = moiety to form a polycyclic conjugated ring or heterocyclic ring; R₂, R₃ = H, alkyl, aralkyl, aryl, group to form a heterocyclic ring; when R₂ is H, R₃ can be N:CR₆R₇ or NR₈R₉; R₄ = alkyl, aralkyl, aryl; Y = divalent aromatic hydrocarbon moiety, heterocyclic moiety; R₆-R₇ = H, alkyl, aryl, heterocyclyl, cyclic hydrocarbon group; R₈, R₉ = R₂ ; in R₁₀-R₁₁ and R₁₂-R₁₃ = one of them is OH and the other one is bond)], is image-wise exposed with ≥ 20 lx-s light to form an optical memory. The memory formation is based on optical memory effect, which allows to make multiple copies with single exposure. Image quality of 100th copy was the same as that of 1st copy.

AN 1990:108494 CAPLUS Full-text

DN 112:108494

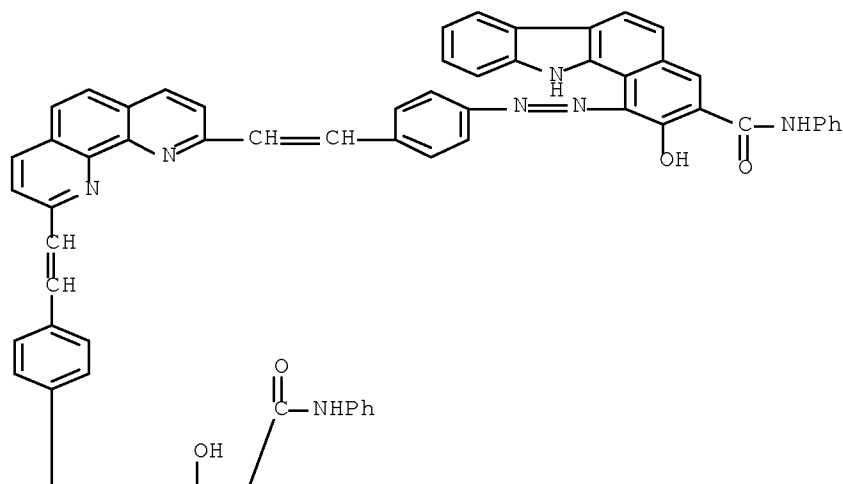
TI Method for memory formation on the electrophotographic photoreceptor

IN Ito, Masayuki; Takada, Masakazu; Ueda, Takamasa

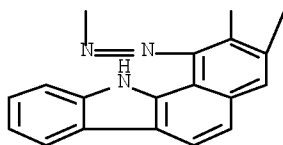
PA Minolta Camera Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01161355	A	19890626	JP 1987-321918 JP 1987-321918	19871218 19871218
IT	122296-62-2 125378-32-7				
	RL: USES (Uses)				
	(in electrophotog. photoreceptor with optical memory)				
RN	122296-62-2	CAPLUS			
CN	11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)				

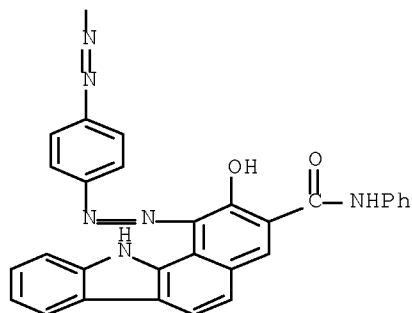
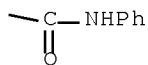
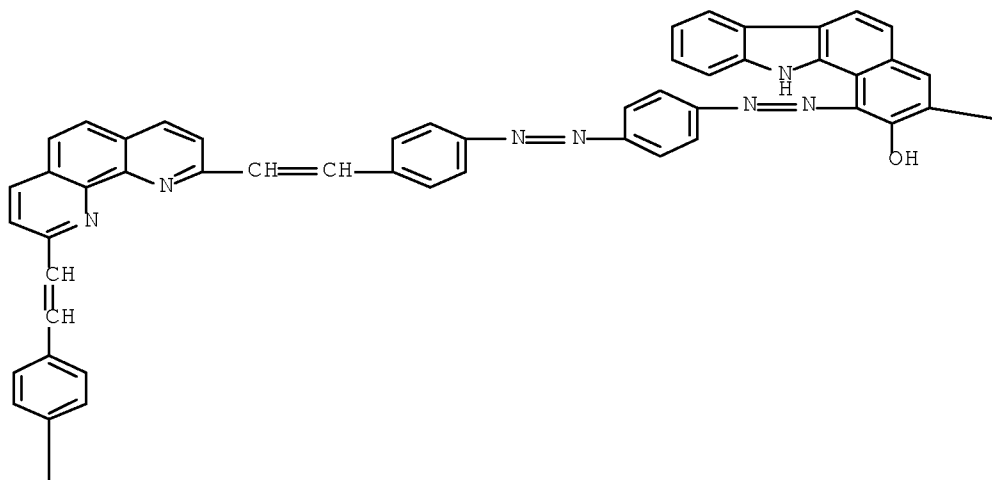
PAGE 1-A



PAGE 2-A



RN 125378-32-7 CAPLUS
 CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 117 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI For diagram(s), see printed CA Issue.

AB The title toner contains bisazo dyes of the structure I (A = arom. heterocyclcyl containing 2 N-atoms; B = a coupler group of the structure II, III, IV, V, VI, or VII; Z = a group forming aromatic C or heterocyclic rings; G = (substituted) carbamoyl, sulfamoyl; R1 = alkyl, amino, carbamoyl, (esterified) carboxy, CN; M = aryl; R2, R3 = alkyl, aralkyl, aryl; Y = an aromatic hydrocarbylene, a divalent N-containing group), dispersed in thermoplastic resins. This toner, for an electrophotog. method excluding the

use of the usual photoconductors, has high photosensitivity, dispersibility, and thermal stability. Thus, a photoconductive toner was prepared from SBM73 (styrenic acrylic polymer), the bisazo compound VIII, p-diethylaminobenzaldehyde phenylhydrazone, and Viscol 550P (polyethylene-polypropylene). This toner spread on an bronze plate was charged by corona discharge, imagewise exposed, a paper receptor superposed thereon, and then oppositely charged to transfer the image onto the paper. A clear blue-purple image was obtained by thermal fixing.

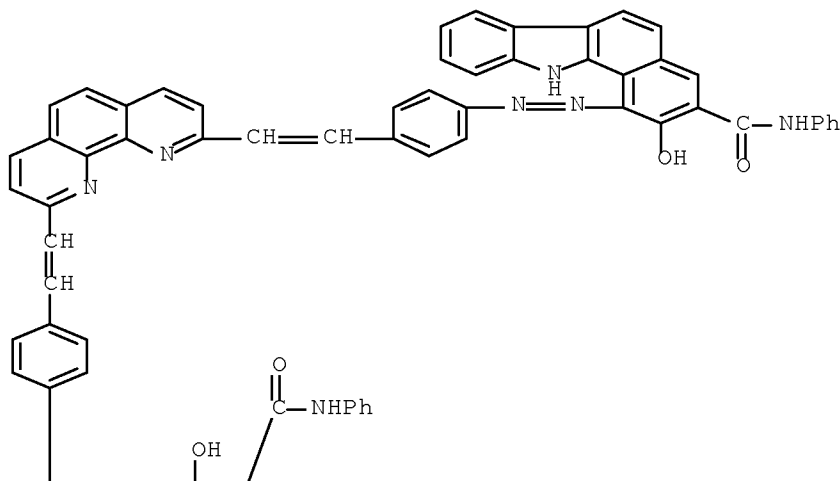
AN 1989:564179 CAPLUS Full-text
 DN 111:164179
 TI Photoconductive electrophotographic toner
 IN Yasuno, Masahiro; Takada, Masakazu; Ueda, Hideaki
 PA Minolta Camera Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

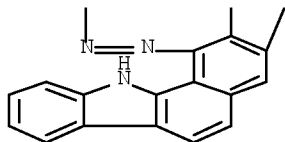
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01079757	A	19890324	JP 1987-238390	19870921
				JP 1987-238390	19870921

IT 122296-62-2
 RL: USES (Uses)
 (electrophotog. photoconductive toner containing charge-generating agent from, preparation of)

RN 122296-62-2 CAPLUS
 CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI)
 (CA INDEX NAME)

PAGE 1-A





L4 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electrophotog. photoreceptors have on a conductive support a photoconductive layer containing, as a charge carrier-generating agent, a bisazo compound of the formula (RN:N-p-C₆H₄CH:CH)2Z [I; R = a coupler residue selected from II [X = (substituted) aromatic hydrocarbon ring or heterocyclic ring; R1 = (substituted) carbamoyl or sulfamoyl], III [R2 = H, (substituted) aryl, amino, or carbamoyl, carboxyl or its ester, CN; R3 = (substituted) aryl], IV, V [R4, R5 = (substituted) alkyl or aralkyl, aryl], VI and VII (X1 = divalent aromatic hydrocarbon, divalent ring having N); Z = VIII, IX (R6 = H, halo, alkyl, alkoxy, CN, Ph). The coating solution of the layer exhibits good dispersibility, and the photoreceptors show good sensitivity, red color-reproducibility, and cyclicability. Thus, an Al-deposited polyester film was coated with a composition containing I (R = X; Z = VIII) and Vylon 200 (polyester resin) and overcoated with a composition containing a hydrazone and K-1300 (polycarbonate resin).

AN 1989:505765 CAPLUS Full-text

DN 111:105765

TI Electrophotographic photoreceptors containing bisazo pigment as charge carrier-generating agent

IN Takada, Masakazu; Ueda, Takamasa; Ito, Masayuki; Mikasa, Hiroko; Hirashima, Tsunesuke; Yamamoto, Soichi; Ishino, Yoshio; Ono, Toshinobu

PA Minolta Camera Co., Ltd., Japan; Osaka, City of

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 01063971	A	19890309	JP 1988-34592	19880216
				JP 1987-126137	A1 19870522
	JP 01063972	A	19890309	JP 1988-34593	19880216
				JP 1987-126137	A1 19870522

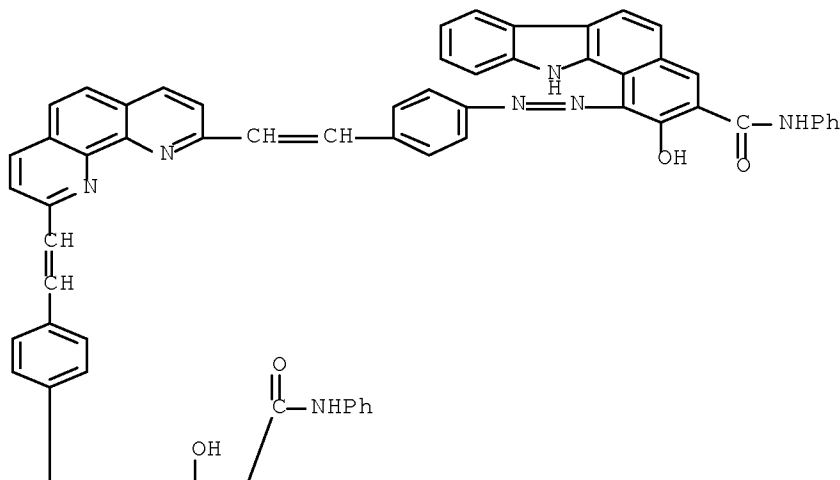
PATENT FAMILY INFORMATION:

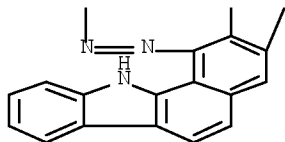
FAN 1990:207918

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 01297652	A	19891130	JP 1988-127495	19880525
	US 4945021	A	19900731	US 1989-308629	19890210
				JP 1988-34593	A 19880216
				JP 1988-127495	A 19880525
				JP 1988-169379	A 19880707

				JP 1988-271899	A	19881027
FAN	1990:488242					
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
	-----	----	-----	-----		-----
PI	JP 02019854	A	19900123	JP 1988-169379		19880707
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707
				JP 1988-271899	A	19881027
FAN	1990:581400					
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
	-----	----	-----	-----		-----
PI	JP 02118580	A	19900502	JP 1988-271899		19881027
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707
				JP 1988-271899	A	19881027
IT	122296-62-2					
	RL: USES (Uses)					
	(electrophotog. photoreceptor containing charge carrier-generating agent from)					
RN	122296-62-2 CAPLUS					
CN	11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI)					
	(CA INDEX NAME)					

PAGE 1-A





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(FILE 'HOME' ENTERED AT 12:13:53 ON 30 NOV 2007)

FILE 'CAPLUS' ENTERED AT 12:14:27 ON 30 NOV 2007

FILE 'REGISTRY' ENTERED AT 12:14:34 ON 30 NOV 2007

L1 STRUCTURE UPLOADED

L2 11 S L1

L3 243 S L1 FUL

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L4 118 S L3

=> s 14 and py<2003

22908429 PY<2003

L5 48 L4 AND PY<2003

=> d abs fbib hitstr 1-20

L5 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The title device comprises a thin film by stacking an org. layer contg. at least an organic luminous layer and an electronic transporting layer formed from an organic compound with mol. weight above 400 on the first electrode which was formed on the baseplate, and the second electrode on the formed thin layer. Part of the electronic transporting layer is doped by donor impurity, the above organic compound possibly has the chelate coordinated side of donor impurity. The title device has high radiance efficiency, low drive voltage, and high durability.

AN 2002:925575 CAPLUS Full-text

DN 138:30828

TI Organic electroluminescence devices

IN Takano, Akiko; Tominaga, Takeshi; Asuka, Noboru

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

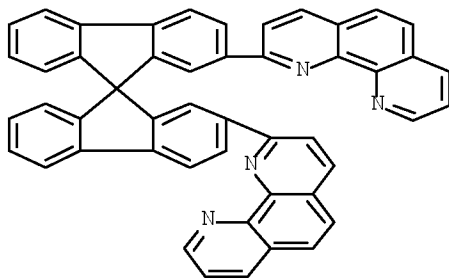
DT Patent

LA Japanese

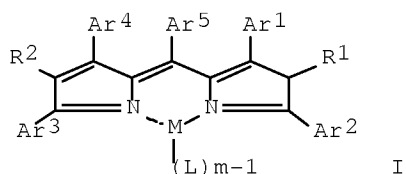
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2002352961	A	20021206	JP 2001-157544	20010525 <--
				JP 2001-157544	20010525
IT	252878-73-2				
	RL: DEV (Device component use); USES (Uses)				
	(organic electroluminescence devices)				
RN	252878-73-2 CAPLUS				
CN	1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA				

INDEX NAME)



L5 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB Pyrromethene metal complexes are described by the general formula I (R1, R2, and each L = independently selected H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halogen, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and fused aromatic and alicyclic rings formed from Ar1-4 and L; M + a metal having a valence of m selected from boron, beryllium, magnesium, chromium, iron, nickel, copper, zinc, and platinum; and Ar1-5 = independently selected optionally substituted aryl groups with the proviso that any of Ar1-4, together with an adjacent group selected from R1, R2 and the or each group L may form a fused aromatic or alicyclic ring). Light-emitting devices comprising ≥ 1 of a diketopyrrolo[3,4-c]pyrrole derivative and an organic fluorescent material having a fluorescent peak wavelength in the range 580-720 nm; and a light-emitting device composition containing I are also described.

AN 2002:831834 CAPLUS Full-text

DN 137:343709

TI Pyrromethene metal complexes and light emitting device composition and light emitting devices using the same

IN Murase, Seiichiro; Tominaga, Tsuyoshi; Kohama, Akira

PA Toray Industries, Inc., Japan

SO Eur. Pat. Appl., 54 pp.

CODEN: EPXXDW

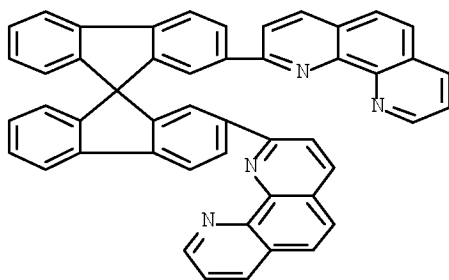
DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 1253151	A1	20021030	EP 2002-252947	20020425 <--
	EP 1253151	B1	20050112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	TW 565604	B	20031211	TW 2002-91107585	20020415
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	JP 2003012676	A	20030115	JP 2002-117229	20020419
	JP 4000893	B2	20071031		
				JP 2001-127311	A 20010425
	US 2003082406	A1	20030501	US 2002-126652	20020422
	US 6805978	B2	20041019		
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	SG 121713	A1	20060526	SG 2002-2483	20020424
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	CN 1390841	A	20030115	CN 2002-124569	20020425
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	AT 286903	T	20050115	AT 2002-252947	20020425
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	CN 1690162	A	20051102	CN 2005-10071206	20020425
				JP 2001-127311	A 20010425
				CN 2002-124569	A3 20020425
	JP 2003086379	A	20030320	JP 2002-150546	20020524
				JP 2001-158325	A 20010528
OS	MARPAT 137:343709				
IT	252878-73-2P				
	RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)				
	(pyrromethene metal complexes and light-emitting device compns. and the devices)				
RN	252878-73-2 CAPLUS				
CN	1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)				



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The syntheses, crystal structures, magnetic and photoluminescence properties of dinuclear and mononuclear copper(II) and copper(I) N-carbazolylacetate [N-

carbazolylacetic acid = Hcabo] with different carboxylato coordination modes are reported. Although the carboxylato group has different coordination modes, the same carboxylate ligand binding to copper ion via four coordinating modes is rare. The crystal structure of $[\text{Cu}_2(\text{Cabo})_4(\text{DMF})_2] \cdot 2\text{DMF}$ (1) consists of a sym. dimeric Cu(II) carboxylato paddle-wheel core and oxygen atoms from DMF at the apical positions. Dinuclear $[\text{Cu}_2(\text{Cabo})_3(\text{phen})_2]\text{ClO}_4 \cdot \text{H}_2\text{O} \cdot \text{C}_2\text{H}_5\text{OH}$ (2) (phen = 1,10-phenanthroline) consists of an unusual dimeric core with two copper atoms bridged by three carboxylates one of which is in the $\eta:\eta:\mu_2$ bridging mode and the other two are in the rarer monoat. bridging mode. To the authors' knowledge, the present bridging mode was not reported hitherto. The crystal structures of $[\text{Cu}(\text{Cabo})_2\text{phen}]$ and $[\text{Cu}(\text{Cabo})(\text{PPh}_3)_2]$ are also reported. Magnetic susceptibilities were measured in the temperature range 2–300 K paddle-wheel copper(II) ions in 1 are strongly coupled antiferromagnetically with $2J = -356.4(6) \text{ cm}^{-1}$, whereas complex 2 shows weak antiferromagnetic interaction with a $2J$ value of $-12.8(4) \text{ cm}^{-1}$. Copper(I) N-carbazolylacetate with strong fluorescence in the solid state as well as high thermal stability was obtained by reduction of the copper(II) N-carbazolylacetate using PPh_3 (triphenylphosphine) in DMF solution

AN 2002:722185 CAPLUS Full-text

DN 138:32308

TI Structural diversity and properties of a series of dinuclear and mononuclear copper(II) and copper(I) carboxylato complexes

AU Tian, Yu-Peng; Zhang, Xuan-Jun; Wu, Jie-Ying; Fun, Hoong-Kun; Jiang, Min-Hua; Xu, Zhi-Qiang; Usman, Anwar; Chantrapromma, Suchada; Thompson, Laurence K.

CS Department of Chemistry, Anhui University, Anhui, Hefei, 230039, Peop. Rep. China

SO New Journal of Chemistry (2002), 26(10), 1468-1473
CODEN: NJCHE5; ISSN: 1144-0546

PB Royal Society of Chemistry

DT Journal

LA English

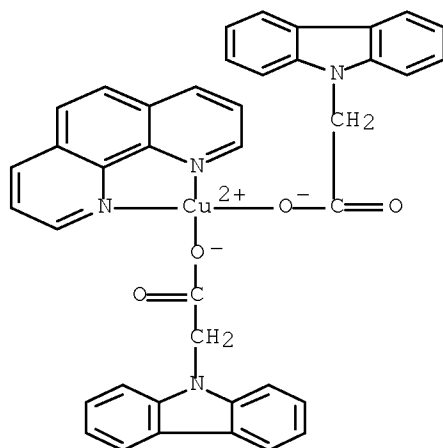
OS CASREACT 138:32308

IT 478242-61-4F

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure)

RN 478242-61-4 CAPLUS

CN Copper, bis(9H-carbazole-9-acetato- κO9)(1,10-phenanthroline- $\kappa\text{N1},\kappa\text{N10}$)-, (SP-4-2)- (9CI) (CA INDEX NAME)

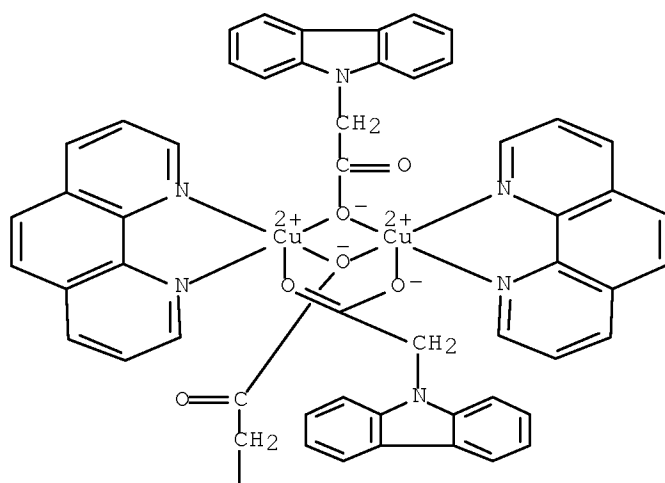


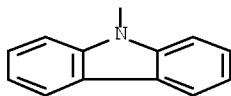
IT 478242-60-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation, crystal structure and magnetic properties)
 RN 478242-60-3 CAPLUS
 CN Copper(1+), bis[μ-(9H-carbazole-9-acetato-κO9:κO9)][μ-(9H-carbazole-9-acetato-κO9:κO9')]bis(1,10-phenanthroline-κN1,κN10)di-, stereoisomer, perchlorate, compd. with ethanol (1:1), monohydrate (9CI) (CA INDEX NAME)
 CM 1
 CRN 64-17-5
 CMF C2 H6 O

H₃C—CH₂—OH

CM 2
 CRN 478242-59-0
 CMF C66 H46 Cu2 N7 O6 . C1 O4
 CM 3
 CRN 478242-58-9
 CMF C66 H46 Cu2 N7 O6
 CCI CCS

PAGE 1-A

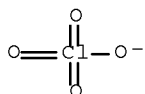




CM 4

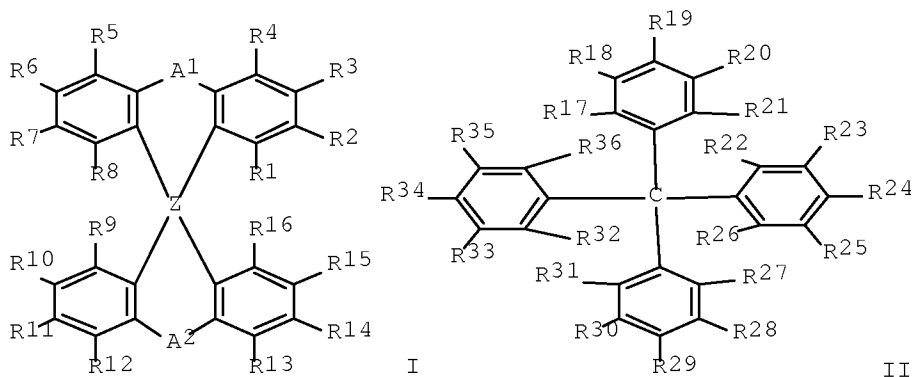
CRN 14797-73-0

CMF Cl O4



RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



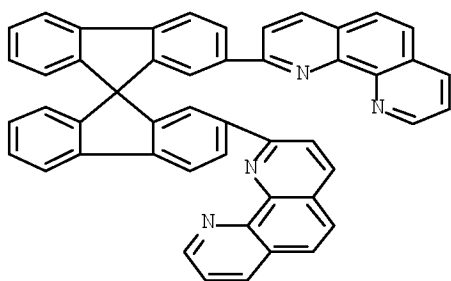
AB The invention refers to an electroluminescent material comprising at least one of the following: a compound with 1,7-phenanthroline skeletons, a benzoquinoline derivative, a spiro-compound I and a tetraphenylmethane derivative II [A1,2 = single bond, (un)substituted alkyl, ether thioether ketone amino chain, A1 ≠ A2; Z = C or Si; R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings; R17-36 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde,

carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings, wherein at least one of R17-36 is -XAr; X = single bond, -(CH2)n-, O, S, -(Ph)n- or trivalent phosphor oxide; Ar = condensed aromatic or heterocyclic, and when X = trivalent phosphor oxide, Ar = aromatic hydrocarbon or heterocyclic].

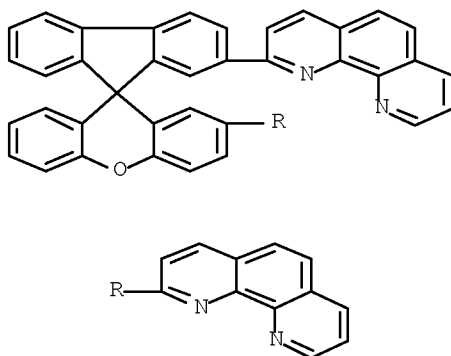
AN 2002:408990 CAPLUS Full-text
 DN 136:393083
 TI Electroluminescent material and component
 IN Tominaga, Tsuyoshi; Kitazawa, Daisuke; Makiyama, Aki; Kohama, Akira
 PA Toray Industries, Inc., Japan
 SO PCT Int. Appl., 77 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002043449	A1	20020530	WO 2001-JP10214	20011122 <--
	W: CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
				JP 2000-357129	A 20001124
				JP 2001-173610	A 20010608
	JP 2002222697	A	20020809	JP 2001-357312	20011122 <--
	JP 3899907	B2	20070328		
				JP 2000-357129	A 20001124
	EP 1341403	A1	20030903	EP 2001-997977	20011122
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				JP 2000-357129	A 20001124
				JP 2001-173610	A 20010608
				WO 2001-JP10214	W 20011122
	TW 572993	B	20040121	TW 2001-90128901	20011122
				JP 2000-357129	A 20001124
				JP 2001-173610	A 20010608
	CN 1658724	A	20050824	CN 2005-10058976	20011122
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	CN 1956237	A	20070502	CN 2006-10143103	20011122
				JP 2000-357129	A 20001124
				JP 2001-173610	A 20010608
				CN 2001-804068	A3 20011122
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				JP 2001-173610	A 20010608
				CN 2001-804068	A3 20011122
	JP 2003059669	A	20030228	JP 2002-163997	20020605
				JP 2001-173610	A 20010608
	US 2003168970	A1	20030911	US 2002-221342	20020911
				WO 2001-JP10214	W 20011122

OS MARPAT 136:393083
 IT 252878-73-2
 RL: DEV (Device component use); USES (Uses)
 (luminescent material and component)
 RN 252878-73-2 CAPLUS
 CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



IT 427375-38-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (luminescent material and component)
 RN 427375-38-0 CAPLUS
 CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-
 diyl)bis- (9CI) (CA INDEX NAME)

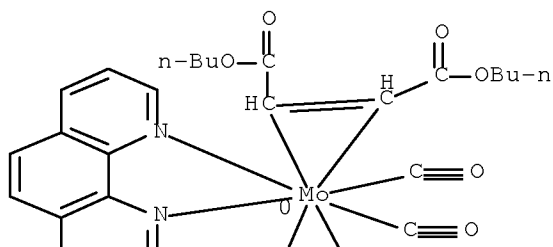


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

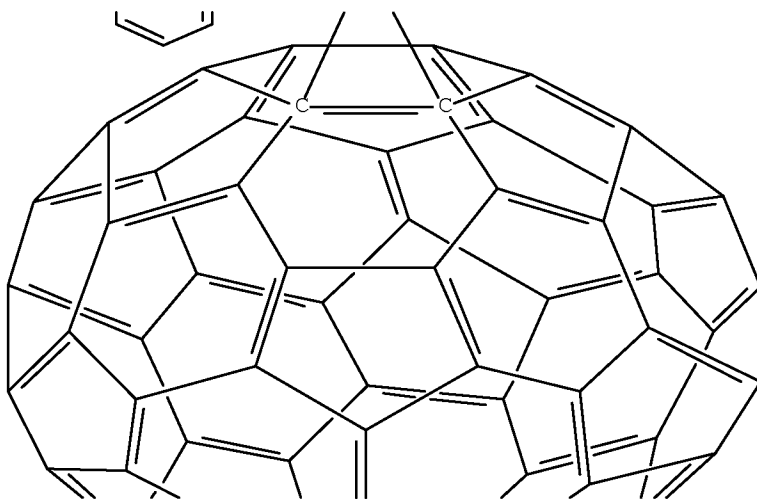
L5 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The crystal structure of molybdenum complex of fullerene Mo(η^2 -C₆₀)(CO)₂(phen)(dbm) (phen = 1,10-phenanthroline, dbm = di-Bu maleate) has been established. The crystal belongs to orthorhombic, space group Pbca with a = 2.5318(5) nm, b = 2.7257(5) nm, c = 1.4577(3) nm, V = 10.059(3) nm³, Z = 8 and RI = 0.0908. In the mol. the coordination geometry of Mo atom is a distorted octahedron with the two CO groups and phen in the equatorial plane and the Mo atom binds in an η^2 fashion to C-C bonds of C₆₀ and dbm. The crystal is stable in the air due to nonexistence of solvent mols. in the cell.
 AN 2002:322452 CAPLUS [Full-text](#)
 DN 138:73332
 TI The crystal structure of molybdenum complex of [60] fullerene Mo(η^2 -C₆₀)(CO)₂(phen)(dbm)
 AU Cui, Peng; Jin, Xianglin; Xie, Xiangjin; Tang, Kaluo
 CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China
 SO Beijing Daxue Xuebao, Ziran Kexueban (2001), 37(6), 875-879
 CODEN: PCTHAP; ISSN: 0479-8023
 PB Beijing Daxue Chubanshe
 DT Journal

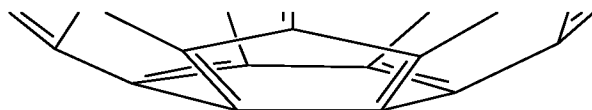
LA English
 OS CASREACT 138:73332
 IT 198712-81-1P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and crystal structure of molybdenum fullerene phenanthroline
 maleate carbonyl complex)
 RN 198712-81-1 CAPLUS
 CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl 2-butenedioate][(1,9- η)-
 [5,6]fullerene-C60-Ih](1,10-phenanthroline- κ N1, κ N10)-,
 stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A

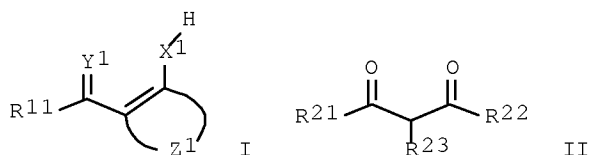


PAGE 2-A





L5 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB The invention refers to an electroluminescent component and color conversion filter comprising I [X1,Y1 = O, S or NR12; R11,12 = H or univalent group; Z1 = aromatic moiety] or R21COC(R22)COCR22 [R21-23 = H or univalent group] as an anion ligand in a rare earth fluorescent complex.

AN 2002:313481 CAPLUS Full-text

DN 136:348060

TI Electroluminescent component and color conversion filter

IN Matsuura, Mitsunobu; Suzurizato, Yoshiyuki; Kita, Hiroshi

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2002124383	A	20020426	JP 2000-316416	20001017 <--
	JP 4003388	B2	20071107		
	JP 2007227947	A	20070906	JP 2007-81224	20070327
				JP 2000-316416	A3 20001017

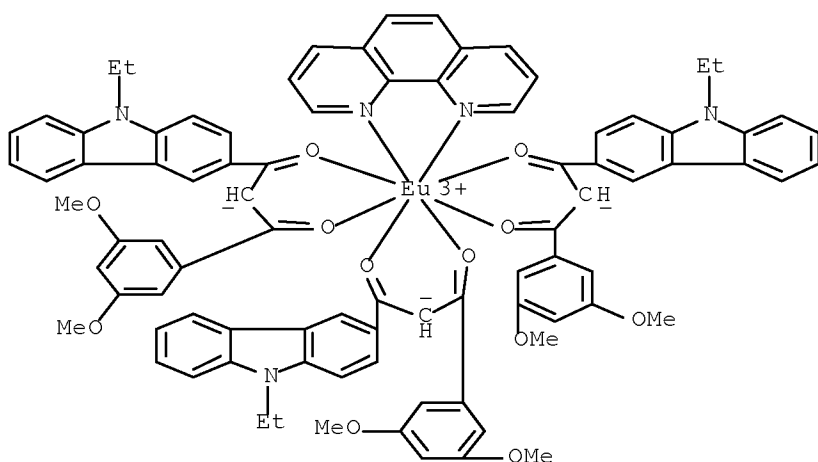
IT 417706-87-7

RL: DEV (Device component use); USES (Uses)

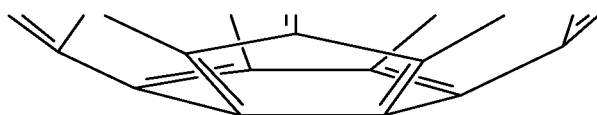
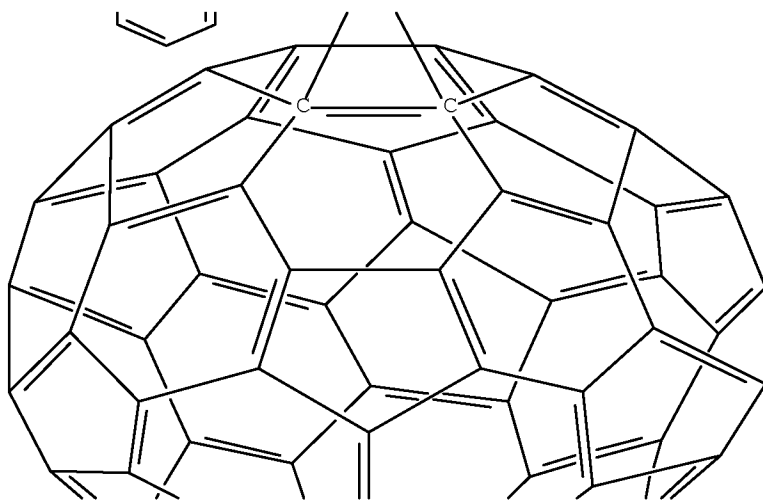
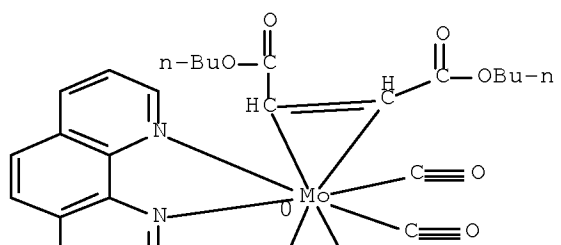
(electroluminescent component and color conversion filter)

RN 417706-87-7 CAPLUS

CN Europium, tris[1-(3,5-dimethoxyphenyl)-3-(9-ethyl-9H-carbazol-3-yl)-1,3-propanedionato-κO,κO'] (1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The synthesis and characterization of several fullerene-based organometallic complexes containing Mo and W, e.g., $[M(\eta^2-C_{60})(CO)_2(phen)(dbf)]$ ($M = Mo, W$, phen = 1,10-phenanthroline, dbf = di-Bu fumarate) and $[Mo(\eta^2-C_{70})(CO)_2(phen)(dbf)]$ is reported. Electrochem. redox behavior, EPR and optical limiting properties as well as x-ray crystal structures are determined for the complexes.
 AN 2002:305219 CAPLUS Full-text
 DN 137:295052
 TI Syntheses, Structures, and Properties of Novel Molybdenum and Tungsten Complexes of Fullerenes
 AU Tang, Kaluo; Jin, Xianglin; Tang, Youqi
 CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China
 SO Physics of the Solid State (Translation of Fizika Tverdogo Tela (Sankt-Peterburg)) (2002), 44(4), 612-614
 CODEN: PSOSD; ISSN: 1063-7834
 PB MAIK Nauka/Interperiodica Publishing
 DT Journal
 LA English
 OS CASREACT 137:295052
 IT 467428-20-2P 467428-23-5P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
 RN 467428-20-2 CAPLUS
 CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl (2E)-2-butenedioate][5,6]fullerene-C₆₀-1h-1,9-diyl(1,10-phenanthroline- $\kappa N1, \kappa N10$)-, stereoisomer, compd. with benzene (1:2) (9CI) (CA INDEX NAME)
 CM 1
 CRN 467428-12-2
 CMF C86 H28 Mo N2 O6
 CCI CCS



CRN 71-43-2
CMF C6 H6

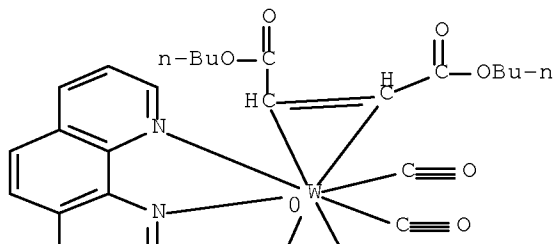


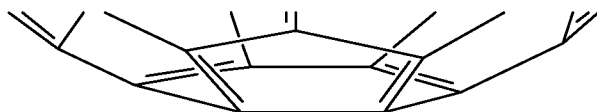
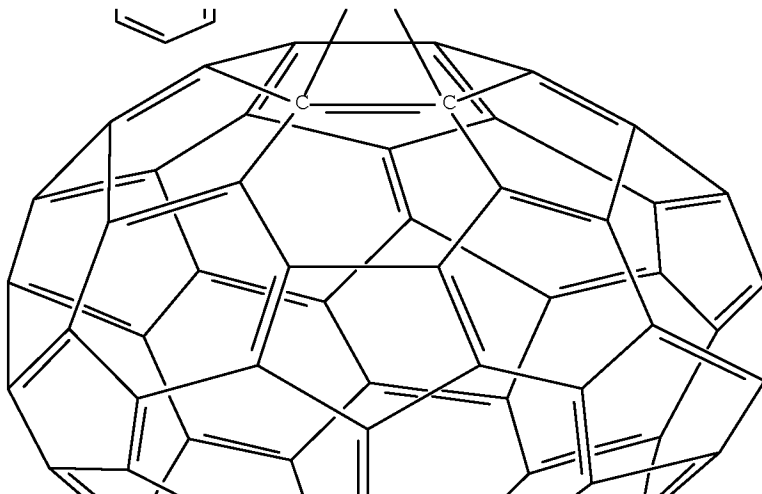
RN 467428-23-5 CAPLUS
CN Tungsten, dicarbonyl[(2,3- η)-dibutyl (2E)-2-butenedioate][5,6]fullerene-C60-1h-1,9-diyl(1,10-phenanthroline- κ N1, κ N10)-, stereoisomer, compd. with benzene (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 467428-14-4
CMF C86 H28 N2 O6 W
CCI CCS

PAGE 1-A





CM 2

CRN 71-43-2

CMF C6 H6



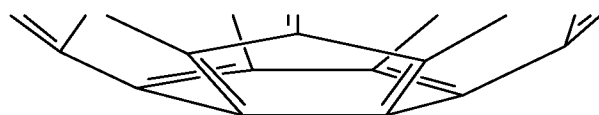
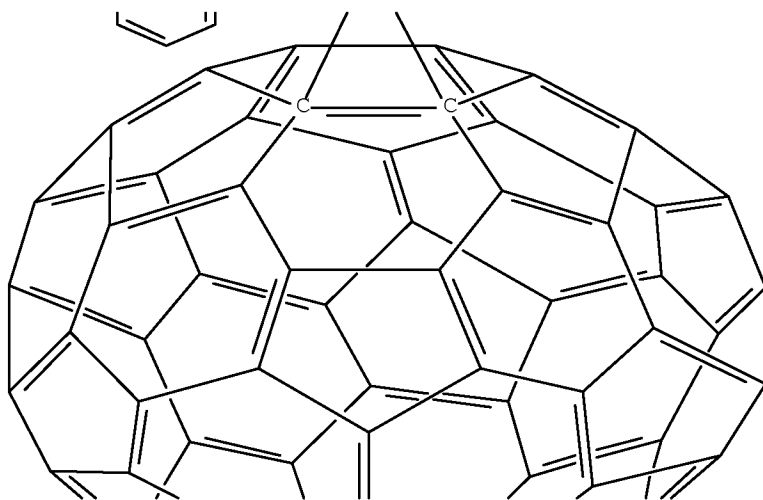
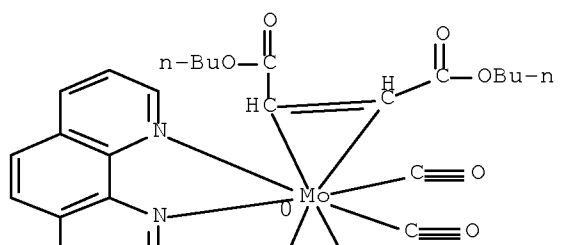
IT 467428-12-2F 467428-15-5P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation, mol. structure, EPR, electrochem. redox and optical limiting properties of)

RN 467428-12-2 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-1h](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)



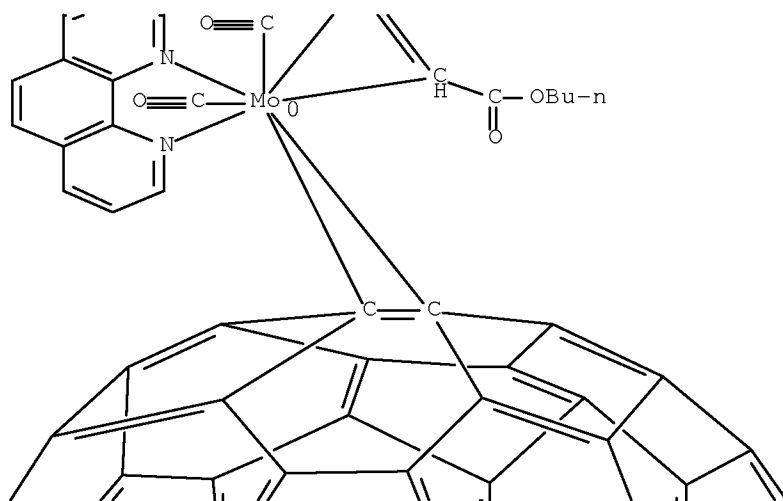
RN 467428-15-5 CAPLUS
 CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl (2E)-2-butenedioate][(8,25- η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-

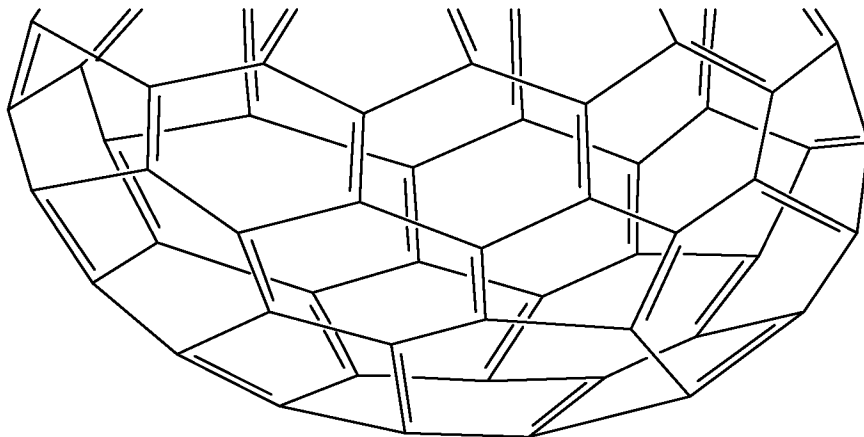
$\kappa N1, \kappa N10$)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A

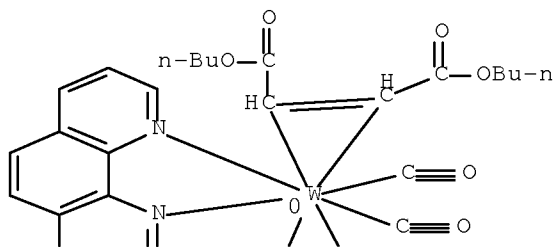


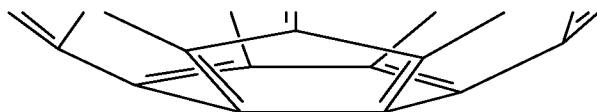
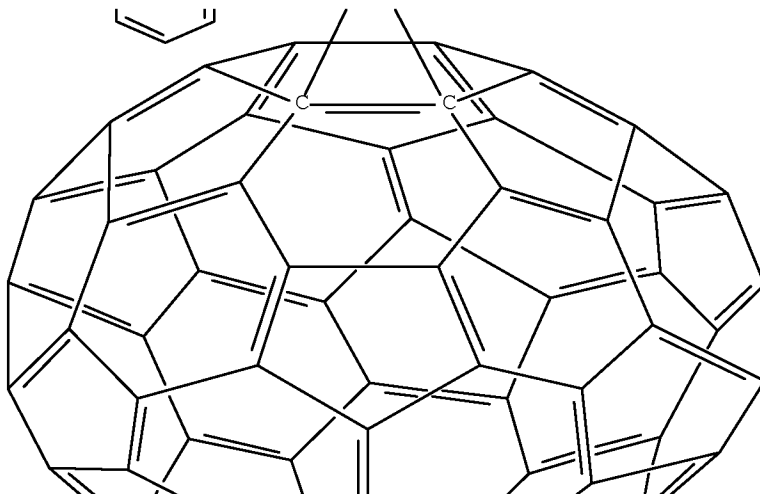
PAGE 2-A





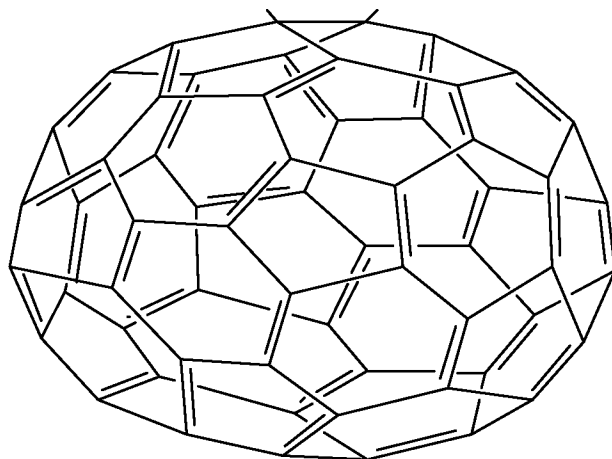
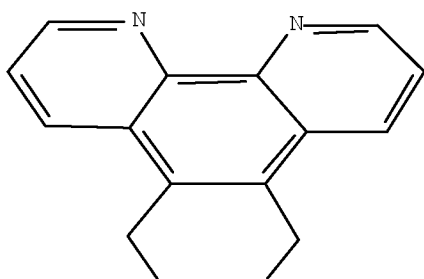
IT 467428-14-4P
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (preparation, mol. structure, EPR, electrochem. redox properties of)
 RN 467428-14-4 CAPLUS
 CN Tungsten, dicarbonyl[(2,3- η)-dibutyl (2E)-2-butenedioate][(1,9- η)-[5,6]fullerene-C60-1h](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer (9CI) (CA INDEX NAME)



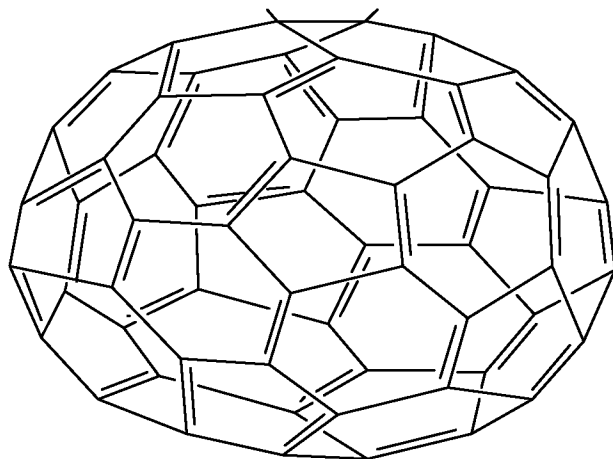


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

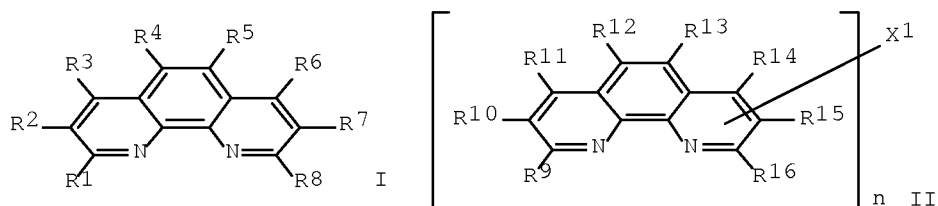
L5 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The optical limiting of nanocomposite based on fullerene was studied using double frequency Nd:YAG pulse laser system with $\lambda = 532$ nm, pulse width of 8 ns, and repetition rate of 10 Hz. The novel material has good optical limiting compared with C60. The sample dissolved in different solvents provided different optical limiting.
 AN 2002:326 CAPLUS Full-text
 DN 136:141732
 TI Optical limiting of nanocomposite based on fullerene
 AU Zu, Jifeng; Gao, Yachen; Wang, Yuxiao; Qu, Shiliang; Song, Yingling; Fan, Wenqi
 CS Department of Physics, Liaoning Normal University, Dalian, 116029, Peop. Rep. China
 SO Guangzi Xuebao (2001), 30(9), 1099-1101
 CODEN: GUXUED; ISSN: 1004-4213
 PB Kexue Chubanshe
 DT Journal
 LA Chinese
 IT 182760-72-1, [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro-
 RL: PRP (Properties)
 (optical limiting of gold nanocomposite with)
 RN 182760-72-1 CAPLUS
 CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline,



L5 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
AB Two novel nanocomposites based on fullerene C60 structured systems with Au nanoparticles were studied with 532 nm, 8 ns duration laser pulses. The comparison between Z-scan exptl. results and theor. anal. indicates that the nonlinear absorption primarily depends on the ligands, and the nonlinear refraction comes mainly from the contribution of Au nanoparticles in the materials. The comparison of the 2 nanocomposites with the known C60 toluene solution in optical limiting properties was performed. The optical limiting mechanisms were discussed.
AN 2001:766829 CAPLUS [Full-text](#)
DN 136:28744
TI Optical nonlinearities in two new nanocomposites based on fullerene C60



L5 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB The devices comprise a pair of electrodes interposing a phosphor layer containing a phenanthroline derivs. I and II (R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, OH, SH, alkoxy, alkylthio, aryloether, arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, CN, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl; $n \geq 2$; and X1 = single bond, bonding between phenanthroline groups).

AN 2001:712868 CAPLUS Full-text

DN 135:280166

TI Organic electroluminescent devices

IN Tominaga, Takeshi; Makiyama, Akira; Kohama, Toru

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

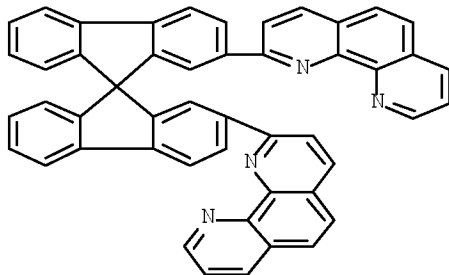
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001267080	A	20010928	JP 2000-372543	20001207 <--
				JP 2000-6933	A 20000114
OS	MARPAT 135:280166				
IT	252878-73-2				

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA
INDEX NAME)



L5 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB RuII-coordinated 3,8-dibromo-1,10-phenanthroline ([Ru(Br₂phen)(bipy)]²⁺) undergoes nucleophilic aromatic substitutions with simple nucleophiles (e.g. methylthiolate, N-Boc-L-cysteine) to give the disubstituted products in high yields. When a fluorenyl anion was used, a mono-substituted product is exclusively obtained. The highly acidic nature of this mono-substituted complex results in deprotonation under the reaction conditions and deactivation toward a 2nd substitution reaction. A complex of lower symmetry was obtained that can be further functionalized using other transformations.

AN 2001:693987 CAPLUS Full-text

DN 136:14702

TI Lowering the symmetry of difunctionalized coordination compounds via nucleophilic aromatic substitutions

AU Hurley, D. J.; Tor, Y.

CS Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA, 92093-0358, USA

SO Tetrahedron Letters (2001), 42(41), 7217-7220
CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 136:14702

IT 374781-77-8F 374781-79-0F

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation from nucleophilic substitution reaction and deprotonation reaction with base)

RN 374781-77-8 CAPLUS

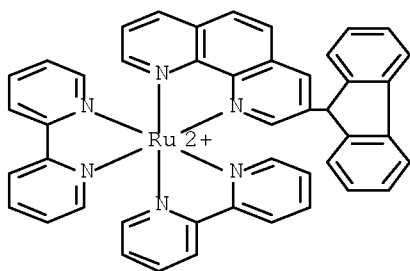
CN Ruthenium(2+), bis(2,2'-bipyridine-κN1,κN1')[3-(9H-fluoren-9-yl)-1,10-phenanthroline-κN1,κN10]-, (OC-6-31)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 374781-76-7

CMF C45 H32 N6 Ru

CCI CCS

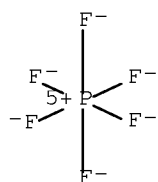


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 374781-79-0 CAPLUS

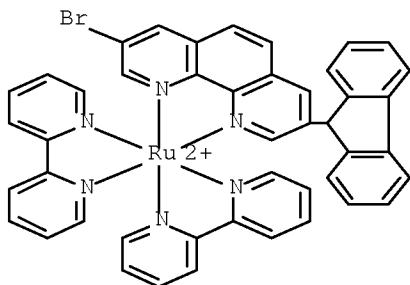
CN Ruthenium(2+), bis(2,2'-bipyridine-κN1,κN1') [3-bromo-8-(9H-fluoren-9-yl)-1,10-phenanthroline-κN1,κN10]-, (OC-6-31)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 374781-78-9

CMF C45 H31 Br N6 Ru

CCI CCS

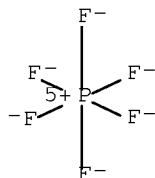


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

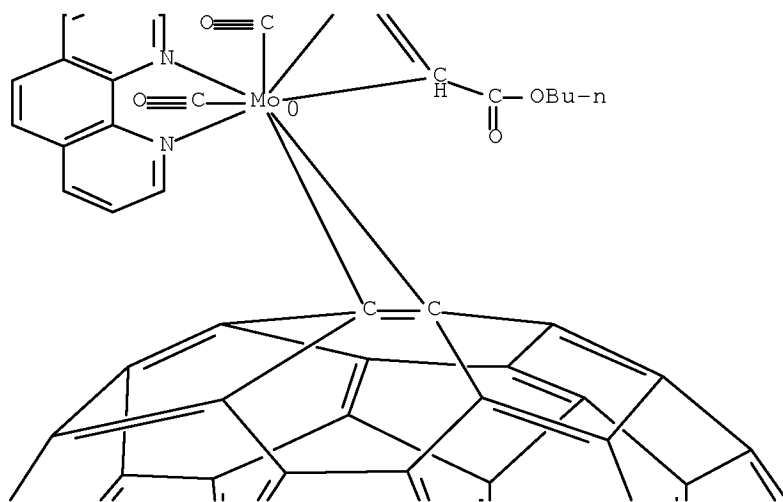


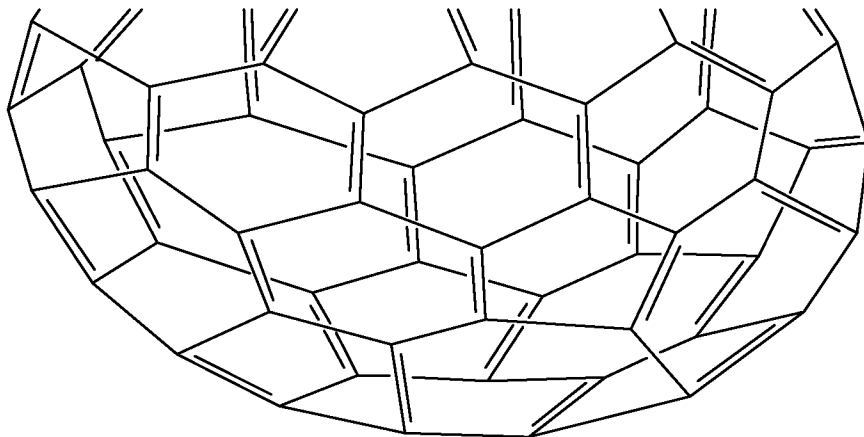
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
AB The Mo complex of C70, [Mo(η^2 -C10)2(phen)(dbm)] (1) (phen = 1,10-phenanthroline, dbm = di-Bu maleate) was synthesized in 32% yield by heating a solution of C70 with [Mo(CO)2(phen)(dbm)2] in toluene followed by chromatog. over silica gel and the crystal structure was determined
AN 2001:662457 CAPLUS Full-text
DN 135:371821
TI The crystal structure of the molybdenum complex of [70]fullerene Mo(η^2 -C70)(CO)2(phen)(dbm)·2C3H8O·2.5H2O (phen = 1,10-phenanthroline, dbm = dibutyl maleate)
AU Cui, Peng; Li, Lei; Tank, Kaluo; Jin, Xianglin
CS Inst. Phys. Chem., Peking Univ., Beijing, 100871, Peop. Rep. China
SO Journal of Chemical Research, Synopses (2001), (6), 240-242
CODEN: JRPSDC; ISSN: 0308-2342
PB Science Reviews Ltd.
DT Journal
LA English
OS CASREACT 135:371821
IT 374725-62-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
RN 374725-62-9 CAPLUS
CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl (2Z)-2-butenedioate][(8,25- η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer, compd. with 2-propanol (2:4), pentahydrate (9CI) (CA INDEX NAME)

CM 1

CRN 313698-07-6
CMF C96 H28 Mo N2 O6
CCI CCS

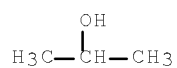




CM 2

CRN 67-63-0

CMF C3 H8 O



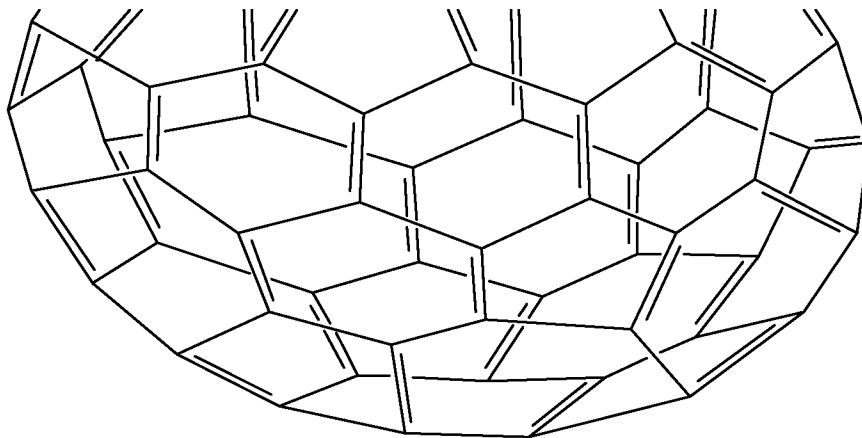
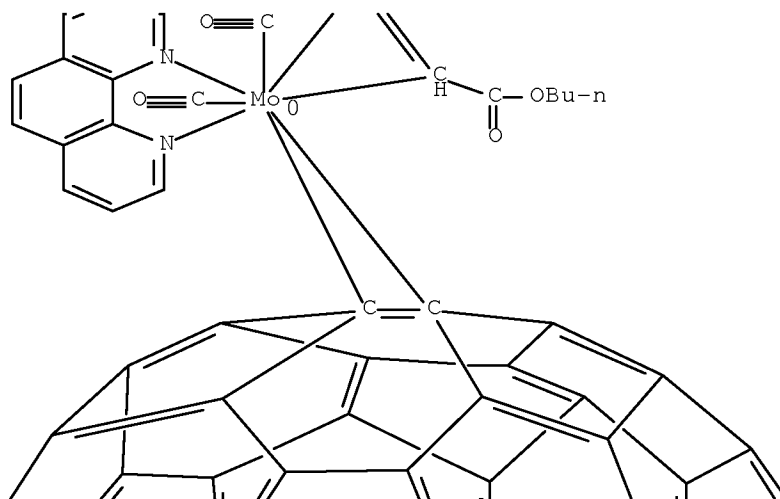
IT 313698-07-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mol. structure of)

RN 313698-07-6 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(8,25-
η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-
κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

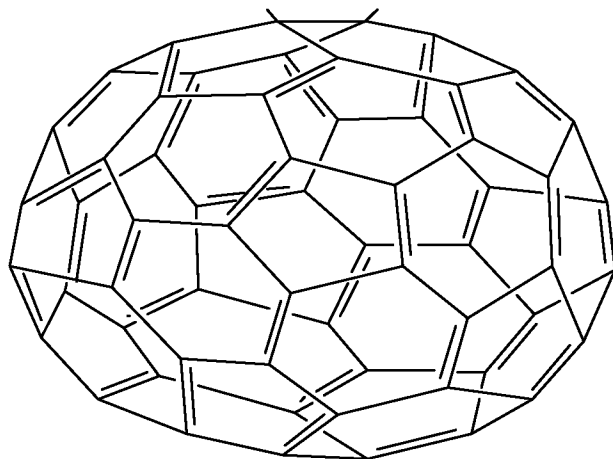




RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

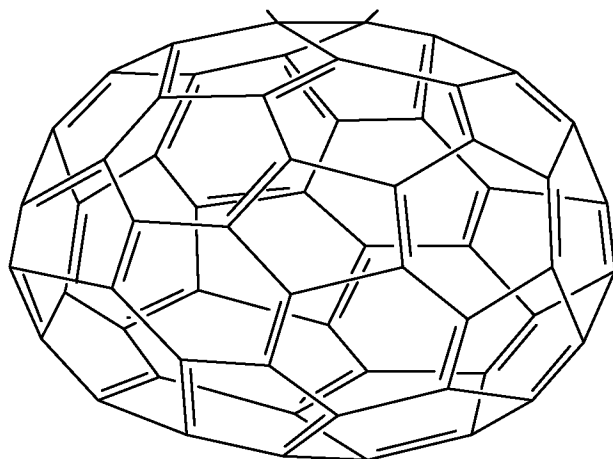
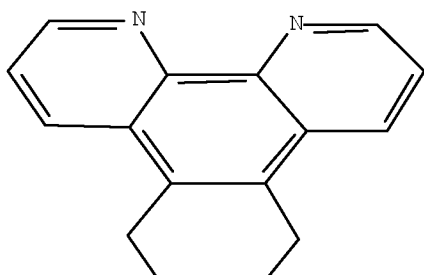
AB Nonlinear optical properties of 3 novel nanocomposites with zerovalent noble metal Au nanoparticles were studied by using Z-scan technique. Optical limiting effects was measured with 8 ns pulses at 532 nm. The cross sections of nonlinear absorption were obtained by the simulation with a simplified model in which the effective excited-state absorptions of 3 ligands in nanocomposites were considered. The nonlinear refractive indexes were calculated from the data of Z-scan measurement. The exptl. results are significantly different in these nanocomposites. Optical nonlinearities in



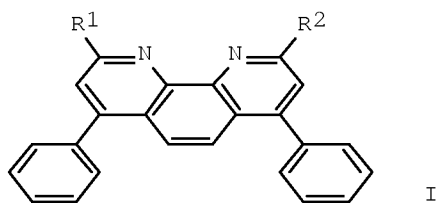
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
AB Fullerene are structurally defined sym. all C cluster, and have a stable phys. nature. The discovery of good optical limiting properties in fullerene materials represents 1 of the most significant development in study of new optical limiters. The optical limiting capabilities of fullerene are limited by relatively low solubility in common solvents. In order to solve the problem, people have tried synthesizing fullerene derivs. More attention was attracted to the optical limiting of nanocomposites. To improve optical limiting, nanocomposites based on fullerene were synthesized. Nonlinear absorption of nanocomposites based on fullerene were studied. The optical nonlinear absorption of Au nanocomposites based on fullerene were studied by using Z-scan with 532 nm, 8 ns laser pulses. Strong absorption was found, and the results of anal. show the nonlinear absorption arise from different substituent.

AN 2001:583659 CAPLUS Full-text
DN 135:324867
TI Optical nonlinear absorption of gold nanocomposites based on fullerene
AU Zu, Ji-feng; Gao, Ya-chen; Qu, Shi-liang; Wang, Yu-xiao; Song, Ying-lin; Fan, Wen-qi
CS Department of Physics, Liaoning Normal University, Dalian, 116029, Peop. Rep. China
SO Liaoning Shifan Daxue Xuebao, Ziran Kexueban (2001), 24(2), 130-132
CODEN: LSDKEQ; ISSN: 1000-1735
PB Liaoning Shifan Daxue
DT Journal
LA Chinese
IT 182760-72-1D, [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro-, gold complexes with
RL: PRP (Properties)
(optical nonlinear absorption of gold nanocomposites with)
RN 182760-72-1 CAPLUS
CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)



L5 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)saturated (un)substituted hydrocarbon groups provided that ≥ 1 of R1 and R2 has ≥ 2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for preparing the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compound The compds. may be used as organic layers (e.g., charge transport layers) in electroluminescent devices.

AN 2001:338137 CAPLUS Full-text

DN 134:346297

TI Bathophenanthroline compound and process for preparing same

IN Shibamura, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro

PA Sony Corporation, Japan

SO Eur. Pat. Appl., 64 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1097980	A2	20010509	EP 2000-123668	20001030 <--
	EP 1097980	A3	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001131174	A	20010515	JP 1999-312071	A 19991102
	US 6972334	B1	20051206	US 2000-704968	20001102 <--
				JP 1999-312071	A 19991102
	US 2005073641	A1	20050407	US 2003-656659	20030905
				JP 1999-312071	A 19991102
				US 2000-704968	A1 20001102
	US 2004265626	A1	20041230	US 2004-798820	20040311
	US 7186469	B2	20070306		
				JP 1999-312071	A 19991102
				US 2000-704968	A1 20001102
	US 2005154208	A1	20050714	US 2005-62076	20050221
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				US 2003-656659	A3 20030905

PATENT FAMILY INFORMATION:

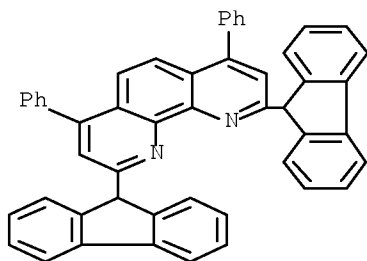
FAN 2001:261095

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1090911	A2	20010411	EP 2000-121754	20001005
	EP 1090911	A3	20010808		
	EP 1090911	B1	20060830		
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				JP 1999-285254	A 19991006
	JP 2001106657	A	20010417	JP 1999-285254	19991006
	US 7049470	B1	20060523	US 2000-680371	20001005
				JP 1999-285254	A 19991006
	US 2006178522	A1	20060810	US 2005-153878	20050615
	US 7196225	B2	20070327		
				JP 1999-285254	A 19991006
				US 2000-680371	A1 20001005

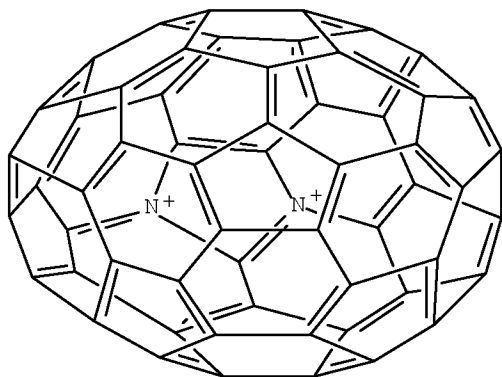
FAN 2001:269310

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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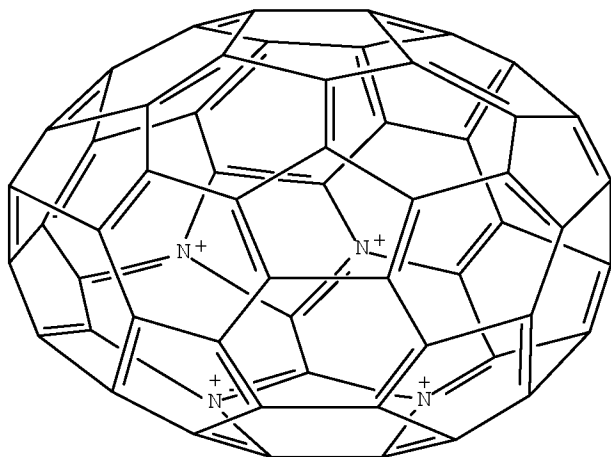
PI	JP 2001106658	A	20010417	JP 1999-285255	19991006
	EP 1092704	A2	20010418	EP 2000-121753	20001005
	EP 1092704	A3	20010425		
	EP 1092704	B1	20060308		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 1999-285255	A 19991006
	US 6492557	B1	20021210	US 2000-680386	20001005
				JP 1999-285254	A 19991006
				JP 1999-285255	A 19991006
	US 2003069448	A1	20030410	US 2002-231355	20020829
	US 6727379	B2	20040427		
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
	US 2003073867	A1	20030417	US 2002-231419	20020829
	US 6897341	B2	20050524		
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
	US 2003204115	A1	20031030	US 2003-389787	20030317
	US 6790974	B2	20040914		
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
				US 2002-231419	A3 20020829
	US 2003212289	A1	20031113	US 2003-390381	20030317
	US 6765108	B2	20040720		
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
				US 2002-231355	A3 20020829
	US 2003220523	A1	20031127	US 2003-392435	20030319
	US 6774257	B2	20040810		
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
				US 2002-231419	A3 20020829
	US 2005052133	A1	20050310	US 2004-955792	20040930
				JP 1999-285255	A 19991006
				US 2000-680386	A3 20001005
				US 2000-704968	A3 20001102
				US 2002-231419	A3 20020829
	US 2005215811	A1	20050929	US 2005-105082	20050413
	US 7087310	B2	20060808		
				JP 1999-285255	A 19991006
				US 2000-680386	A1 20001005
				US 2002-231419	A1 20020829
OS	MARPAT 134:346297				
IT	338734-80-8F				
	RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)				
	(bathophenanthroline derivs. and their preparation and use in electroluminescent devices)				
RN	338734-80-8 CAPLUS				
CN	1,10-Phenanthroline, 2,9-di-9H-fluoren-9-yl-4,7-diphenyl- (CA INDEX NAME)				



L5 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Many isomers of azafullerenes are predicted to be kinetically stable with pos. or small neg. bond resonance energies (BREs). However, none of them have been isolated in macroscopic amts. This fact is presumably associated with the tendency for nascent azafullerenes to eliminate nitrogen atoms as N₂ or CN. Thus, azafullerenes are among the rare examples whose kinetic instability cannot be predicted by the BRE method. However, if someone succeeds in isolating azafullerenes as solids, he or she may possibly notice that some of the isomers with a min BRE > -0.100β are fairly inert.
 AN 2000:833915 CAPLUS Full-text
 DN 134:106125
 TI Kinetic instability of azafullerenes
 AU Aihara, J.
 CS Department of Chemistry, Faculty of Science, Shizuoka University, Oya Shizuoka, 422-8529, Japan
 SO THEOCHEM (2000), 532, 95-102
 CODEN: THEODJ; ISSN: 0166-1280
 PB Elsevier Science B.V.
 DT Journal
 LA English
 IT 320375-80-2, 1,3-Diazonia[5,6]fullerene-C60-Ih 320376-26-9
 RL: PRP (Properties)
 (kinetic instability of azafullerenes studied theor.)
 RN 320375-80-2 CAPLUS
 CN 1,3-Diazonia[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)



RN 320376-26-9 CAPLUS
 CN 1,3,11,13-Tetraazonia[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)



RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Optical limiting property of a novel Mo complex of fullerene C70, (η^2 -C70)Mo(CO)₂(o-phen)(DBM), was studied under irradiation of 10-ns laser pulse at 532 nm. The exptl. results demonstrated that the derivative performed with better optical limiting behavior than the parent C70. An explanation based on the enhanced triplet-triplet absorption dominated by the intramol. charge transfer was given.

AN 2000:719154 CAPLUS Full-text

DN 134:63489

TI Optical limiting property of molybdenum complex of fullerene C70

AU Liu, C.; Zhao, G.; Gong, Q.; Tang, K.; Jin, X.; Cui, P.; Li, L.

CS Department of Physics, National Laboratory for Mesoscopic Physics, Peking University, Beijing, 100871, Peop. Rep. China

SO Optics Communications (2000), 184(1-4), 309-313

CODEN: OPCOB8; ISSN: 0030-4018

PB Elsevier Science B.V.

DT Journal

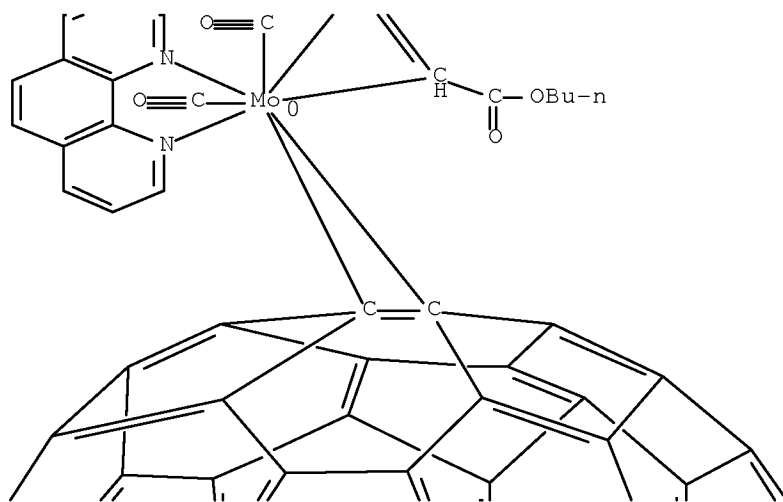
LA English

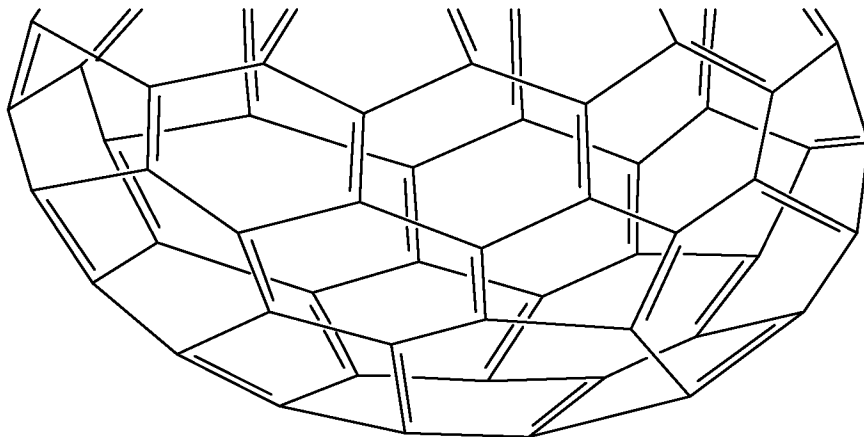
IT 313698-07-6F

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(optical limiting property of molybdenum complex of fullerene C70)

RN 313698-07-6 CAPLUS

CN Molybdenum, dicarbonyl[(2,3- η)-dibutyl (2Z)-2-butenedioate][(8,25- η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer (9CI) (CA INDEX NAME)

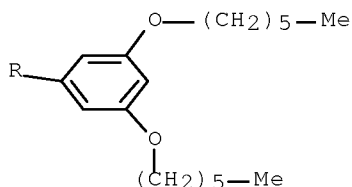
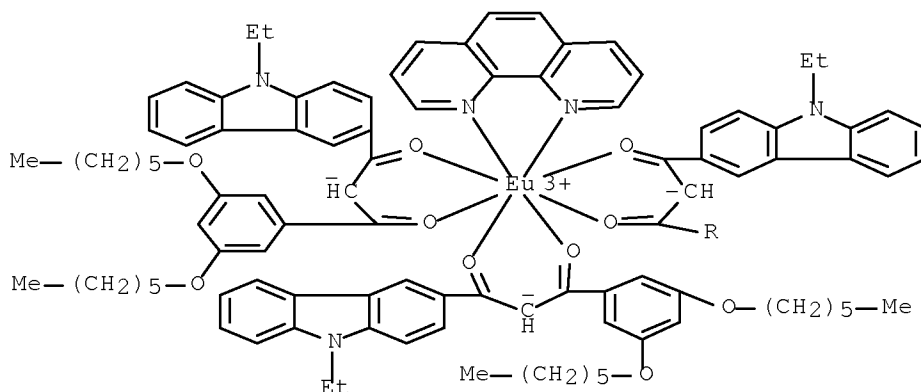




RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
AB Tris[1(N-ethylcarbazolyl)(3',5'-hexyloxybenzoyl)methane](phenanthroline)europium 1 incorporates a phenanthroline ligand for electron transport and a carbazole fragment in the diketonate ligand for hole transport. Also, the six hexyloxy groups prevent crystallization and allow for the formation of transparent clear films directly from solution. The photoluminescence from films of 1 is nearly monochromatic, characteristic of the Eu ion and proceeds with an efficiency of 50(3)%. Light emitting diodes (LEDs) were fabricated using the simplest possible device architecture comprising an anode (ITO), a layer of 1 and a cathode (Ca); a 2nd LED configuration with a PVK layer on top of the ITO was also studied. The performance of the two types of devices is discussed.

AN 2000:585155 CAPLUS Full-text
DN 133:328786
TI Synthesis, morphology and optoelectronic properties of tris[(N-ethylcarbazolyl)(3',5'-hexyloxybenzoyl)methane](phenanthroline)europium
AU Robinson, Matthew R.; Bazan, Guillermo C.; O'Regan, Marie B.
CS Dep. Mater. Eng., University of California, Santa Barbara, CA, 93106, USA
SO Chemical Communications (Cambridge) (2000), (17), 1645-1646
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
IT 303090-36-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(preparation and luminescence and use in electroluminescent devices)
RN 303090-36-0 CAPLUS
CN Europium, tris[1-[3,5-bis(hexyloxy)phenyl]-3-(9-ethyl-9H-carbazol-3-yl)-1,3-propanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Two new dyads were synthesized in which terminal Ru(II) and Os(II) polypyridine complexes are separated by sterically constrained spiro bridges. The photophys. properties of the corresponding mononuclear complexes indicate the importance of the decay of the lowest-energy triplet states localized on the metallo fragments through the higher-energy metal-centered excited states. This effect is minimized at 77 K, where triplet lifetimes are relatively long, and for the Os(II)-based systems relative to their Ru(II)-based counterparts. Intramol. triplet energy transfer takes place from the Ru(II)-based fragment to the appended Os(II)-based unit, the rate constant being dependent on the mol. structure and on temperature. In all cases, the exptl. rate constant matches surprisingly well with the rate constant calculated for Forster-type dipole-dipole energy transfer. As such, the disparate rates shown by the two compds. can be attributed to stereochem. factors. Further the spiro bridging unit does not favor through-bond electron exchange interactions, a situation confirmed by cyclic voltammetry.

AN 2000:463590 CAPLUS Full-text

DN 133:216829

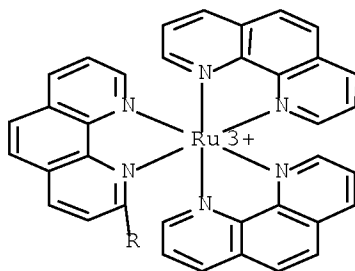
TI Mono- and Dinuclear Ruthenium(II) and Osmium(II) Polypyridine Complexes Built around Spiro-Bridged Bis(phenanthroline) Ligands: Synthesis, Electrochemistry, and Photophysics

AU Juris, Alberto; Prodi, Luca; Harriman, Anthony; Ziessel, Raymond; Hissler, Muriel; El-ghayoury, Abdelkrim; Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.

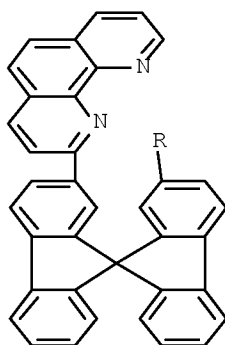
CS Dipartimento di Chimica G. Ciamician, Universita di Bologna, Bologna, 40126, Italy

SO Inorganic Chemistry (2000), 39(16), 3590-3598
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 IT 289912-28-3 289912-29-4 289912-31-8
 289912-32-9 289912-34-1 289912-43-2
 289912-45-4 289912-47-6 289912-49-8
 289912-51-2 289912-53-4 289912-55-6
 289912-57-8
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,
 nonpreparative)
 (elec. potential of couple containing)
 RN 289912-28-3 CAPLUS
 CN Ruthenium(3+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-
 phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-
 κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

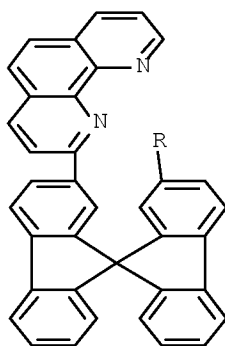
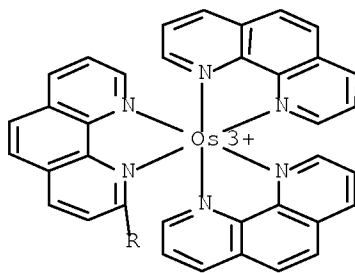
PAGE 1-A



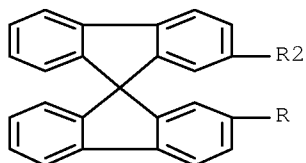
PAGE 2-A



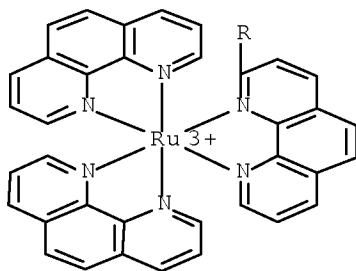
RN 289912-29-4 CAPLUS
 CN Osmium(3+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-
 phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-
 κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)



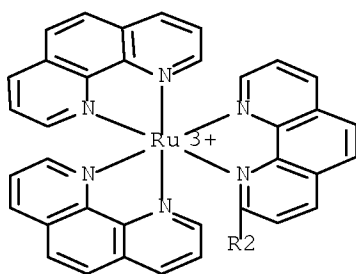
RN 289912-31-8 CAPLUS
 CN Ruthenium(6+), tetrakis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)



PAGE 2-A

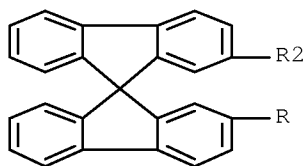


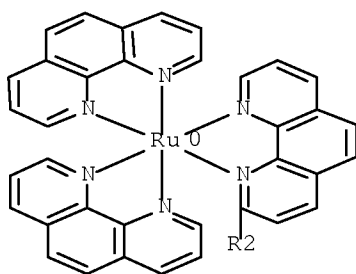
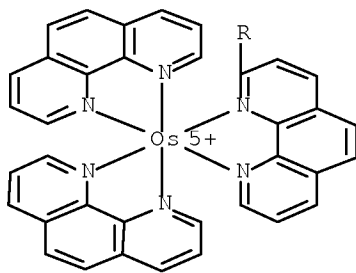
PAGE 3-A



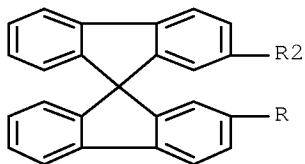
RN 289912-32-9 CAPLUS
 CN Osmium(5+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]] - (9CI)
 (CA INDEX NAME)

PAGE 1-A

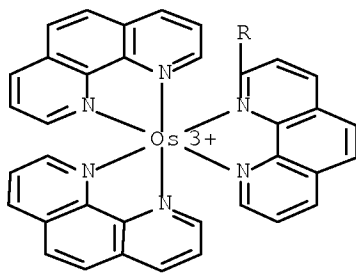




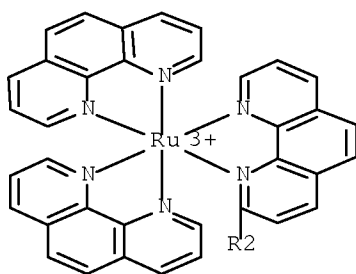
RN 289912-34-1 CAPLUS
 CN Osmium(6+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]] - (9CI)
 (CA INDEX NAME)



PAGE 2-A

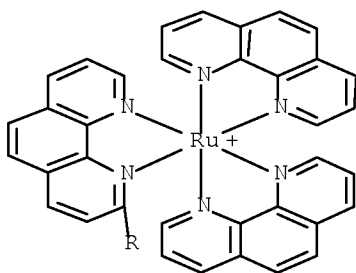


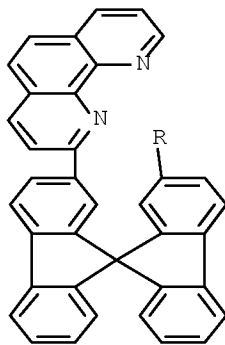
PAGE 3-A



RN 289912-43-2 CAPLUS
 CN Ruthenium(1+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

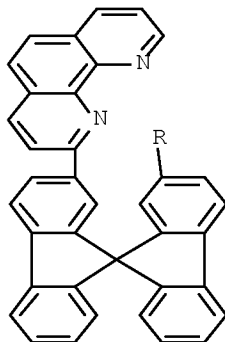
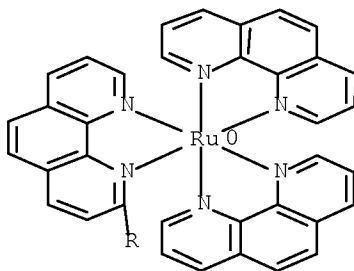
PAGE 1-A





RN 289912-45-4 CAPLUS

CN Ruthenium, bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

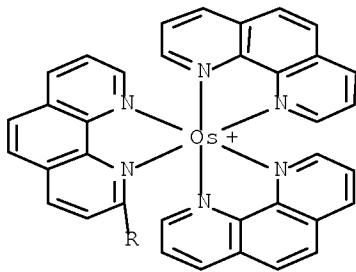


RN 289912-47-6 CAPLUS

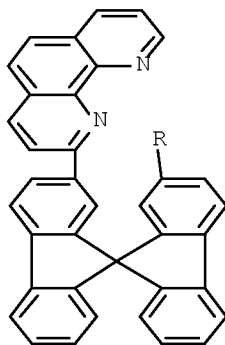
CN Osmium(1+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-

$\kappa N1, \kappa N10$]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



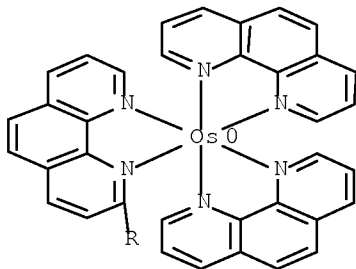
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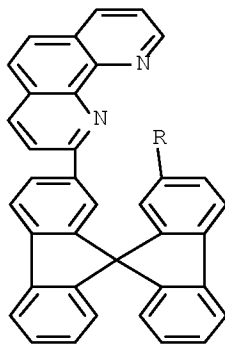


RN 289912-49-8 CAPLUS

CN Osmium, bis(1,10-phenanthroline- $\kappa N1, \kappa N10$) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline- $\kappa N1, \kappa N10$]-, (OC-6-33)- (CA INDEX NAME)

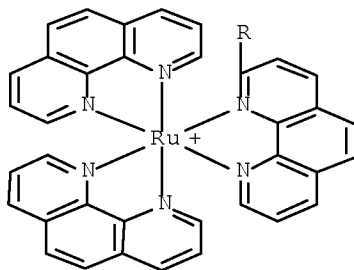
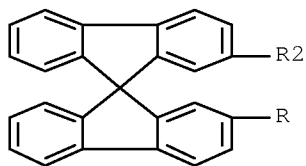
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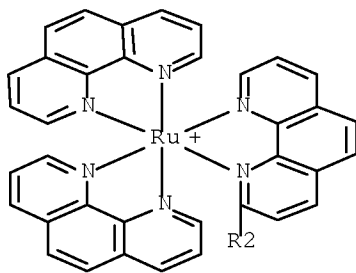




RN 289912-51-2 CAPLUS

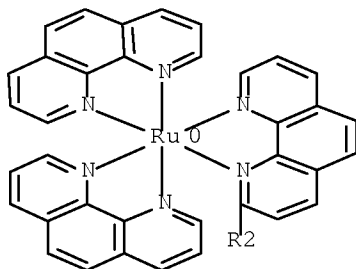
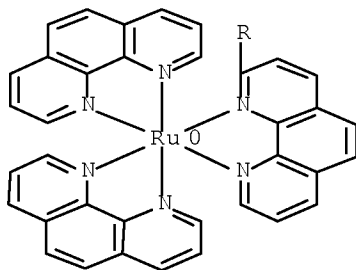
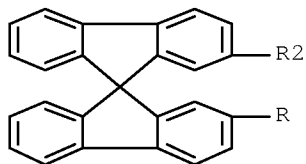
CN Ruthenium(2+), tetrakis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)





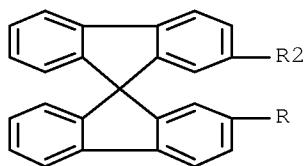
RN 289912-53-4 CAPLUS

CN Ruthenium, tetrakis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)

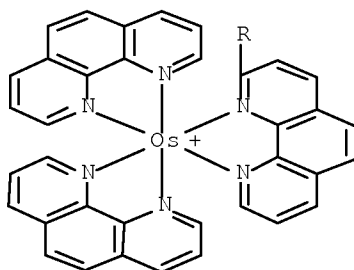


RN 289912-55-6 CAPLUS
 CN Osmium(2+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI)
 (CA INDEX NAME)

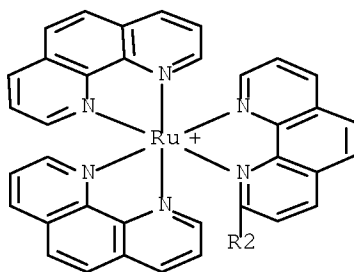
PAGE 1-A



PAGE 2-A

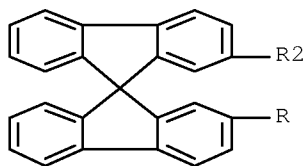


PAGE 3-A

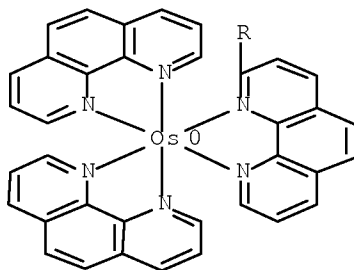


RN 289912-57-8 CAPLUS
 CN Osmium, [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI) (CA INDEX NAME)

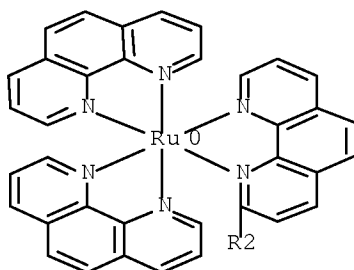
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PAGE 2-A



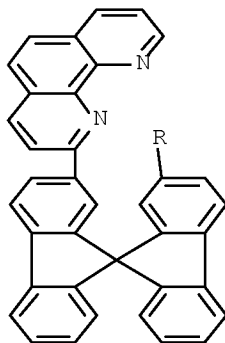
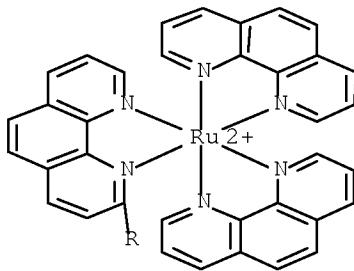
PAGE 3-A



IT 253141-13-8P 289912-14-7P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation, electrochem. redox and photophysics)
RN 253141-13-8 CAPLUS
CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-
phenanthrolin-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-
κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 253141-12-7
CMF C73 H44 N8 Ru
CCI CCS

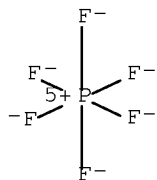


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 289912-14-7 CAPLUS

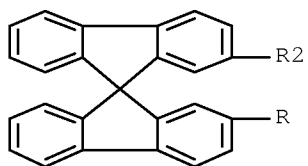
CN Ruthenium(4+), tetrakis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di-, tetrakis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

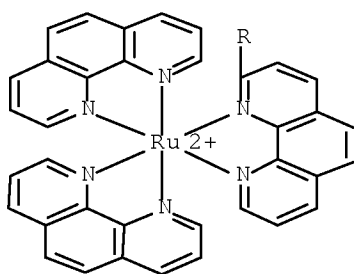
CRN 289912-13-6

CMF C97 H60 N12 Ru2
CCI CCS

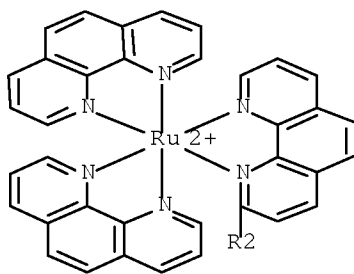
PAGE 1-A



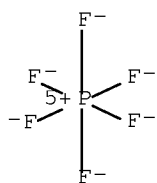
PAGE 2-A



PAGE 3-A



CM 2
CRN 16919-18-9
CMF F6 P
CCI CCS



IT 289912-22-7P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, electrochem. redox, photophysics and energy transfer kinetics)

RN 289912-22-7 CAPLUS

CN Osmium(4+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10) [μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]-, tetrakis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

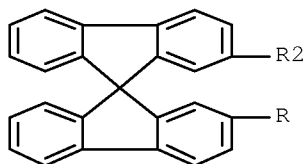
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CRN 289912-21-6

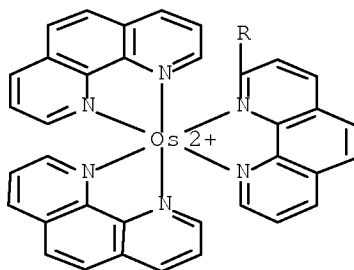
CMF C97 H60 N12 Os Ru

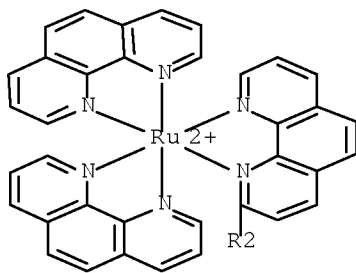
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PAGE 1-A



PAGE 2-A



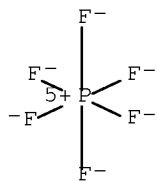


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IT 289912-18-1P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, electrochem. redox, photophysics and reaction to give heterodinuclear ruthenium(II)-osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

RN 289912-18-1 CAPLUS

CN Osmium(2+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthroline-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

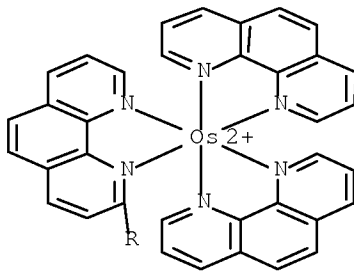
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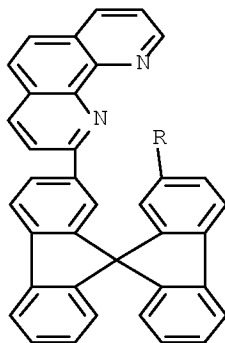
CMF C73 H44 N8 Os

CCI CCS

PAGE 1-A



PAGE 2-A

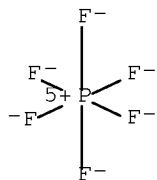


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



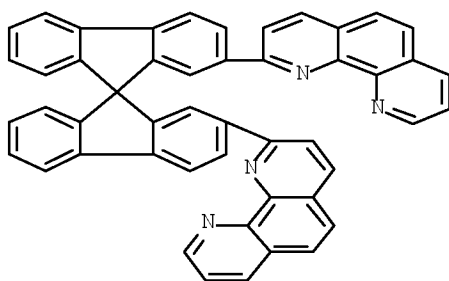
IT 252878-73-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant for preparation of mono- and dinuclear ruthenium(II) and osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The electrochem. behavior of the series (C60)[Mo(CO)₂(phen)(dbm)]_n (n = 1-3) was studied in dichloromethane solution. Each member of the family displays three reversible, fullerene-centered, 1-electron redns. at potential values which linearly shift towards more neg. potential values by 0.15 V for each appended molybdenum fragment. Such reduction processes are in turn followed by a metal-centered reduction, which causes decomplexation of the C60 ligand. EPR spectra recorded on the electrogenerated monoanions [(C60){Mo(CO)₂(phen)(dbm)]_n⁻ (n = 1,2) exhibit features indicative of some interaction between the electron entering the fullerene ligand and the metallic center(s). Comparison with the redox behavior of the C70-analog (C70)[Mo(CO)₂(phen)(dbm)] reveals significant differences, that the C70-analog exhibits two reversible 1-electron redns. followed by a single two-electron reduction, all of these redns. being centered on the fullerene ligand. A further cathodic step centered on the metallic fragment is present, which, also in this case, causes framework destruction releasing the C70 ligand.

AN 2000:379450 CAPLUS Full-text

DN 133:95935

TI The redox behavior of the family (C60)[Mo(CO)₂(phen)(dbm)]_n (n = 1-3) - a comparison with the analog (η²-C70)[Mo(CO)₂(phen)(dbm)] (phen = 1,10-phenanthroline; dbm = dibutyl maleate)

AU Zanello, Piero; Laschi, Franco; Cinquantini, Arnaldo; Fontani, Marco; Tang, Kaluo; Jin, Xianglin; Li, Lei

CS Dipartimento di Chimica dell'Universita di Siena, Siena, 53100, Italy

SO European Journal of Inorganic Chemistry (2000), (6), 1345-1350

CODEN: EJICFO; ISSN: 1434-1948

PB Wiley-VCH Verlag GmbH

DT Journal

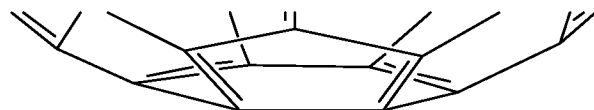
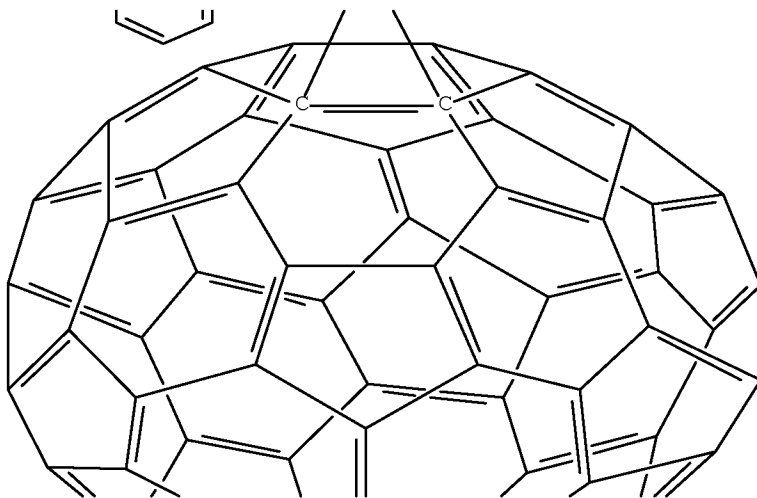
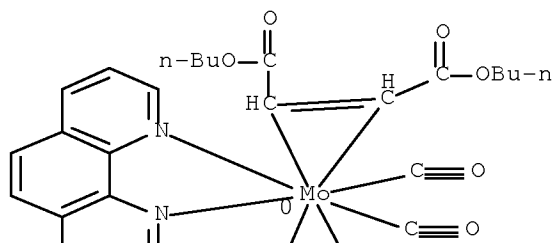
LA English

IT 198712-81-1

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(electrochem. reduction on platinum and formal potentials in dichloromethane)

RN 198712-81-1 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-1h](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)



IT 225373-73-9
 RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation,

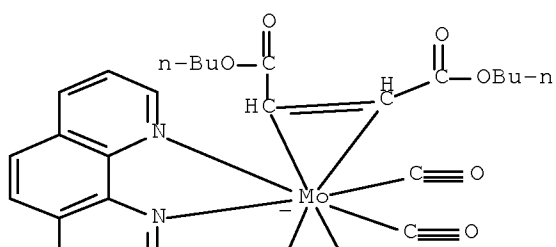
nonpreparative); PROC (Process); RACT (Reactant or reagent)

(electrochem. reductive formation and EPR and electrochem. reduction of)

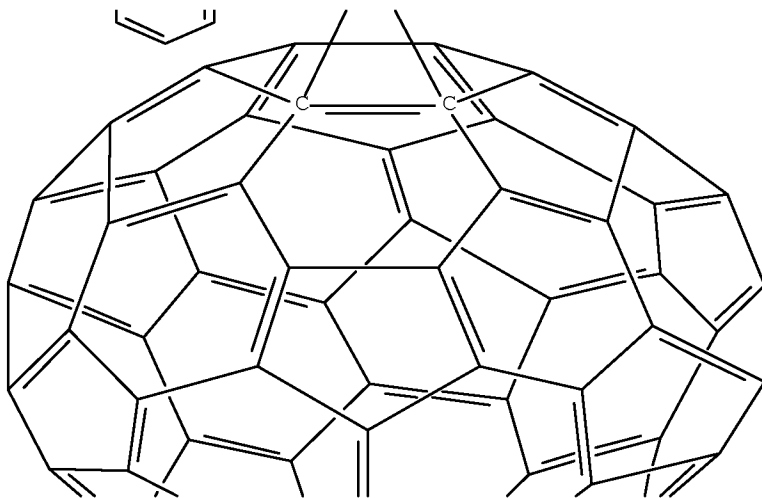
RN 225373-73-9 CAPLUS

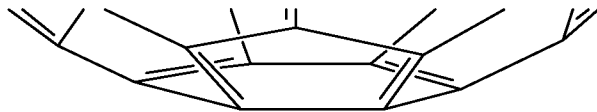
CN Molybdate(1-), dicarbonyl[(2,3- η)-dibutyl (2Z)-2-butenedioate][(1,9- η)-[5,6]fullerene-C60-1h](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A





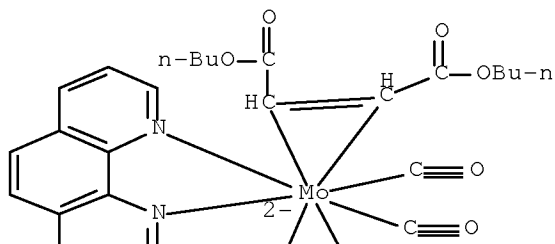
IT 280742-12-3

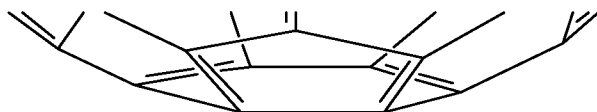
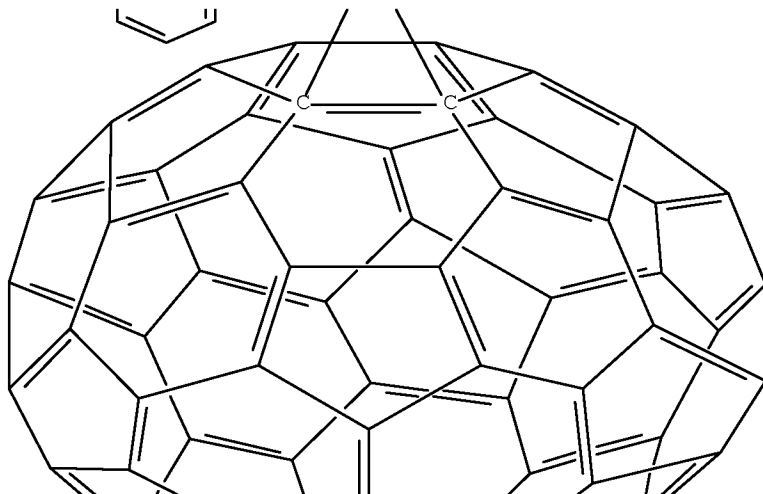
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)

(electrochem. reductive formation and reduction in dichloromethane)

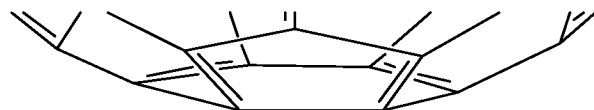
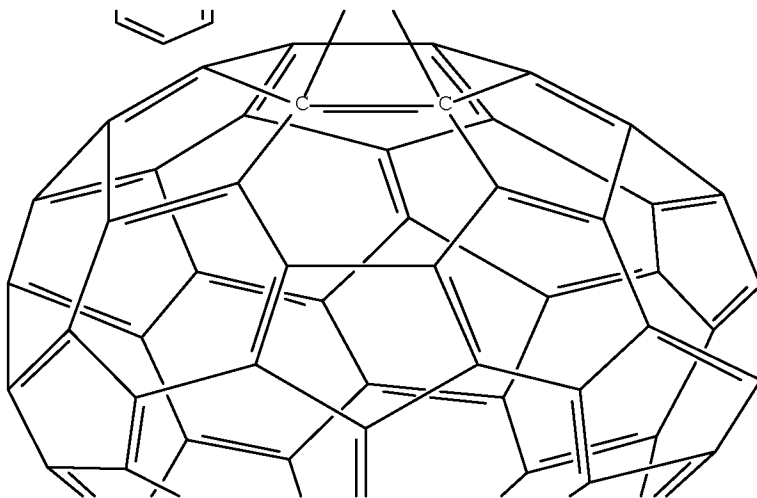
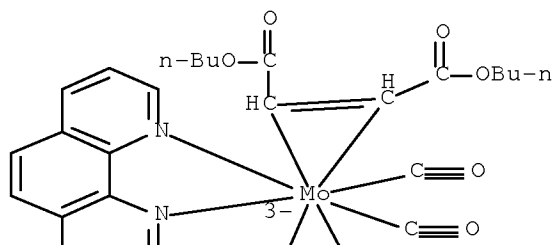
RN 280742-12-3 CAPLUS

CN Molybdate(2-), dicarbonyl[(2,3- η)-dibutyl (2Z)-2-butenedioate][(1,9- η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer (9CI) (CA INDEX NAME)





IT 280742-13-4
 RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)
 (electrochem. reductive formation in dichloromethane)
 RN 280742-13-4 CAPLUS
 CN Molybdate(3-), dicarbonyl[(2,3- η)-dibutyl (2Z)-2-butenedioate][(1,9- η)-[5,6]fullerene-C60-1h](1,10-phenanthroline- κ N1, κ N10)-, stereoisomer (9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
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292.97	465.75

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ENTRY	SESSION
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NEWS	13	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary

NEWS 14 DEC 17 CA/CaPlus enhanced with new custom IPC display formats
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 from USPATOLD
 NEWS 16 JAN 02 STN pricing information for 2008 now available
 NEWS 17 JAN 16 CAS patent coverage enhanced to include exemplified
 prophetic substances
 NEWS 18 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new
 custom IPC display formats
 NEWS 19 JAN 28 MARPAT searching enhanced
 NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days
 of publication
 NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 22 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
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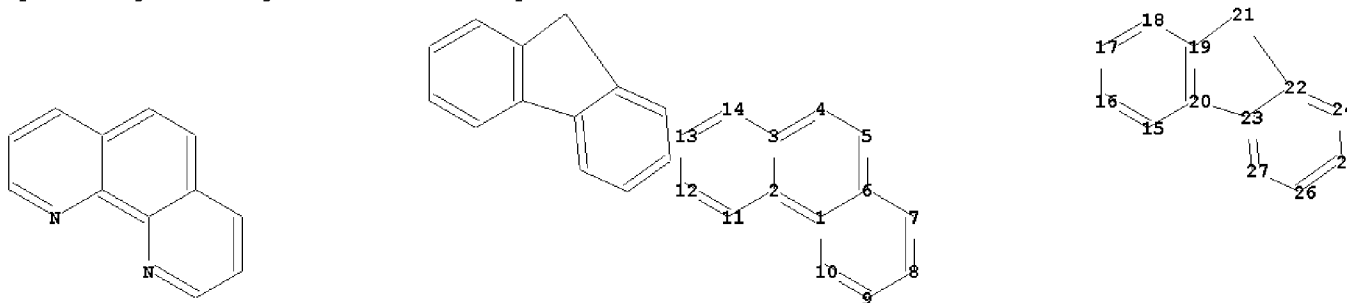
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ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27

ring bonds :

1-2 1-6 1-10 2-3 2-11 3-4 3-14 4-5 5-6 6-7 7-8 8-9 9-10 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24
23-27 24-25 25-26 26-27

exact/norm bonds :

19-21 20-23 21-22

normalized bonds :

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26-27

isolated ring systems :

containing 1 :

Match level :

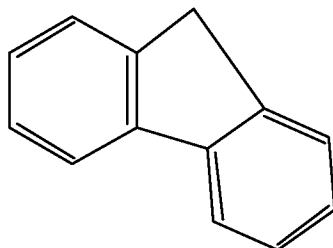
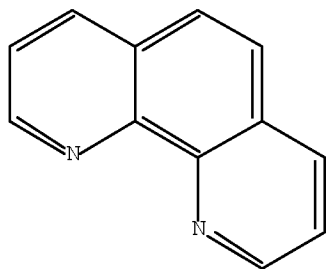
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10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
26:CLASS 27:CLASS

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L1 STR



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100.0% PROCESSED 825 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 14777 TO 18223

PROJECTED ANSWERS: 6 TO 266

L2 6 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 16:56:08 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 16153 TO ITERATE

100.0% PROCESSED 16153 ITERATIONS

51 ANSWERS

SEARCH TIME: 00.00.01

L3 51 SEA SSS FUL L1

=> file caplus

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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178.57

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=> s 13

L4 44 L3

=> d abs fbib hitstr 30-44

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The following polymers were prepd. by Suzuki coupling of 3,8-dibromo-1,10-phenanthroline and appropriate sym. substituted aromatic boron derivs.: poly[3,8-(1,10-phenanthroline)(2,5-didodecyloxy)-1,4-phenylene] and poly[3,8-(1,10-phenanthroline)(9,9-dioctyl)-2,7-fluorene]. 2,5-Didodecyloxy-1,4-bis(5,5-dimethyl-1,3,2-dioxaborinan-2-yl)benzene was also coupled with a number of 2,5-disubstituted 1,4-bis(5-bromopyridin-2-yl)benzenes (2,5-substitution patterns: H/H, OMe/OC12H25, OH/OC12H25, and OMe/OMe). All resulting polymers were characterized by spectroscopic means as well as their electrochem. and optical data. The metal complexation and photoluminescence behavior (Zn, Eu, and Ir complexes) of poly(phenanthroline phenylene/fluorene) was also studied.

AN 2004:234250 CAPLUS Full-text

DN 141:24021

TI New luminescent 1,10-phenanthroline- and pyridine-containing π -conjugated polymers: synthesis and optical response to protic acid and metal ions

AU Yasuda, Takuma; Yamamoto, Takakazu

CS Chemical Resources Laboratory, Tokyo Institute of Technology, Yokohama, 226-8503, Japan

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2004), 45(1), 250-251
CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry

DT Journal; (computer optical disk)

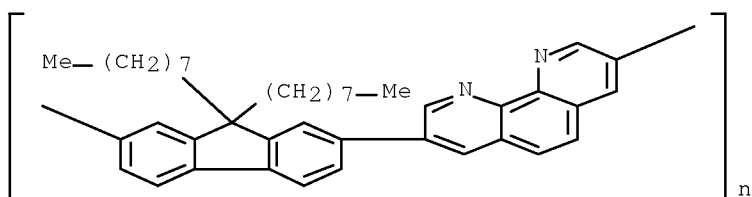
LA English

IT 620970-81-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of luminescent phenanthroline- and pyridine-containing
conjugated
polymers and optical response to protic acid and metal ions)

RN 620970-81-2 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI)
(CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB New π -conjugated polymers comprised of alternating 1,10-phenanthroline/1,4-didodecyloxybenzene, 1,10-phenanthroline/9,9-dioctylfluorene, or pyridine/1,4-dialkoxybenzene units were prepared by palladium(0)-catalyzed coupling reaction in 84-98% yields. The derived polymers gave M_n of 5400-8800 in GPC anal., and they possessed good solubility in organic solvents and high thermal stability. Electrochem. reduction (or n-doping) of the polymers proceeded with peaks in the range -2.3 to -2.6 V vs Ag+/Ag. The polymers were highly photoluminescent, and strong blue emission with the peak in the range 412-434 nm was observed in solns. The emission peak as well as the UV-vis absorption peak of the polymer was influenced by the solvent polarity, protonation, and formation of metal complexes. When the polymers were protonated with trifluoroacetic acid, a large red-shift (ca. 40-60 nm) of the absorption peak was observed. The photoluminescent properties of the polymers were tuned by coordination of the polymer with metal ions. Polymers with long side chains formed an ordered structure in the solid state as judged from their XRD patterns.

AN 2003:726775 CAPLUS Full-text

DN 139:365332

TI Synthesis and Characterization of New Luminescent 1,10-Phenanthroline- and Pyridine-Containing π -Conjugated Polymers. Their Optical Response to Protic Acid, Mn^{+} , and Solvents

AU Yasuda, Takuma; Yamamoto, Takakazu

CS Chemical Resources Laboratory, Tokyo Institute of Technology, Midori-ku Yokohama, 226-8503, Japan

SO Macromolecules (2003), 36(20), 7513-7519

CODEN: MAMOBX; ISSN: 0024-9297

PB American Chemical Society

DT Journal

LA English

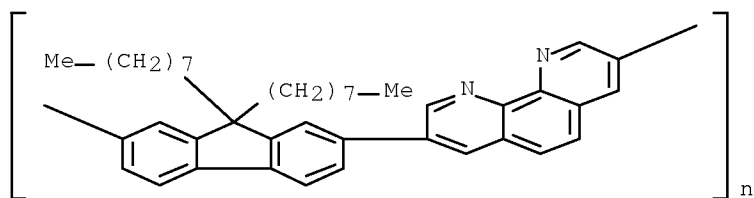
IT 620970-81-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and characterization of luminescent phenanthroline- and pyridine-containing conjugated polymers and their optical response to protic acid and metal ions and solvents)

RN 620970-81-2 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI)
(CA INDEX NAME)

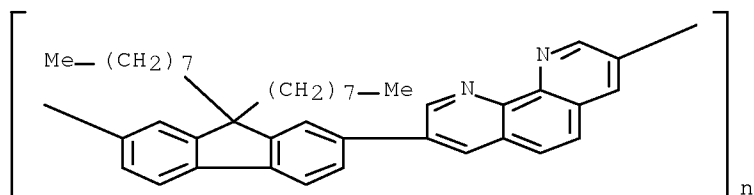


IT 620970-81-2DP, metal complexes

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of luminescent phenanthroline- and
pyridine-containing conjugated polymers and their optical response to
protic acid and metal ions and solvents)

RN 620970-81-2 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI)
(CA INDEX NAME)



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The effects of the rigidity of mol. recognition sites in fluorene-based
conjugated polymers P1 and P2 on metal ion sensing were studied. The
structures of polymers P1 and P2 have twisted 2,2'-bipyridine and planar 1,10-
phenanthroline units, resp., which alternate with one fluorene monomer unit.
The absorption and emission bands of 1,10-phenanthroline- based polymer P2
exposed to metal ions can be red shifted up to 30 nm, and emission intensity
can be quenched up to 100%, depending on metal ions present, which is very
similar to that of the 2,2'-bipyridine-based analog P1. However, polymer P2
shows much higher sensitivity to metal ions than P1. The origins of
ionochromic effects of the 2,2'-bipyridine-based conjugated polymer due to the
metal ion chelation were attributed to both conformational changes and
electron d. variations on the polymer chains caused by introducing pos.
charged metal ions (Chen et al. J. Phys. Chemical, B 2000, 104, 1950-1960).
From the comparison of P2 with P1, conformational changes are not required in
the ion responsive process of the phen ion-recognition unit. The electron d.
variations play more important roles in metal ion-induced red shifts in
absorption and fluorescence quenching in photoluminescence.

AN 2003:444246 CAPLUS Full-text

DN 139:172725

TI Metal Ionochromic Effects of Conjugated Polymers: Effects of the Rigidity
of Molecular Recognition Sites on Metal Ion Sensing

AU Zhang, Ming; Lu, Ping; Ma, Yuguang; Shen, Jiacong

CS Key Laboratory for Supramolecular Structure and Materials of Ministry of
Education, Jilin University, Changchun, 130023, Peop. Rep. China

SO Journal of Physical Chemistry B (2003), 107(27), 6535-6538

CODEN: JPCBFK; ISSN: 1520-6106

PB American Chemical Society

DT Journal

LA English

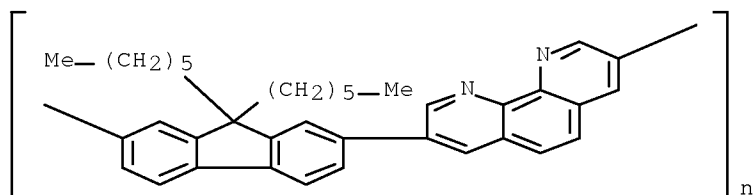
IT 575433-07-7E

RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(metal determination by absorption spectroscopy and titration with conjugated polymers and effects of rigidity of mol. recognition sites on metal ion sensing)

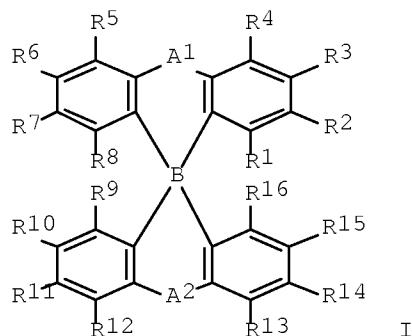
RN 575433-07-7 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI)
(CA INDEX NAME)



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The invention refers to a spiro compd. I [A₁,2 = single bond, (un)substituted alkyl, ether, thioether, ketone or amine chain; B = C, or Si' R₁-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and adjacent groups can be joined to form rings] suitable for use in electroluminescent devices.

AN 2003:257884 CAPLUS [Full-text](#)

DN 138:278183

TI Spiro compound for electroluminescent device
IN Kitazawa, Daisuke; Kohama, Toru; Tominaga, Takeshi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2003096072	A	20030403	JP 2001-293437	20010926
				JP 2001-293437	20010926

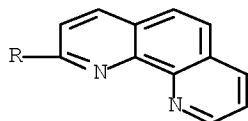
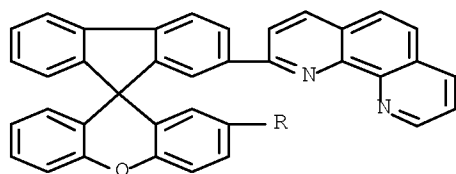
OS MARPAT 138:278183

IT 427375-38-0P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(spiro compound for electroluminescent device)

RN 427375-38-0 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-
diyl)bis- (9CI) (CA INDEX NAME)



L4 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The title device comprises a thin film by stacking an org. layer contg. at least an organic luminous layer and an electronic transporting layer formed from an organic compound with mol. weight above 400 on the first electrode which was formed on the baseplate, and the second electrode on the formed thin layer. Part of the electronic transporting layer is doped by donor impurity, the above organic compound possibly has the chelate coordinated side of donor impurity. The title device has high radiance efficiency, low drive voltage, and high durability.

AN 2002:925575 CAPLUS Full-text

DN 138:30828

TI Organic electroluminescence devices

IN Takano, Akiko; Tominaga, Takeshi; Asuka, Noboru

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

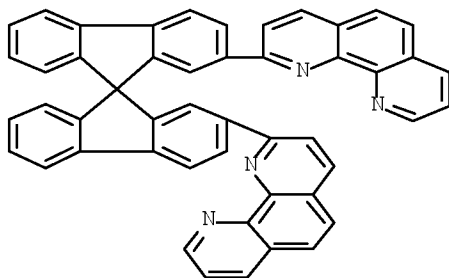
DT Patent

LA Japanese

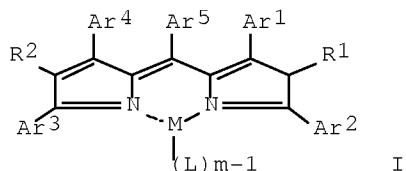
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----

PI JP 2002352961 A 20021206 JP 2001-157544 20010525
 JP 2001-157544 20010525
 IT 252878-73-2
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescence devices)
 RN 252878-73-2 CAPLUS
 CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA
 INDEX NAME)



L4 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 GI



AB Pyromethene metal complexes are described by the general formula I (R1, R2, and each L = independently selected H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halogen, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and fused aromatic and alicyclic rings formed from Ar1-4 and L; M + a metal having a valence of m selected from boron, beryllium, magnesium, chromium, iron, nickel, copper, zinc, and platinum; and Ar1-5 = independently selected optionally substituted aryl groups with the proviso that any of Ar1-4, together with an adjacent group selected from R1, R2 and the or each group L may form a fused aromatic or alicyclic ring). Light-emitting devices comprising ≥ 1 of a diketopyrrolo[3,4-c]pyrrole derivative and an organic fluorescent material having a fluorescent peak wavelength in the range 580-720 nm; and a light-emitting device composition containing I are also described.

AN 2002:831834 CAPLUS Full-text

DN 137:343709

TI Pyromethene metal complexes and light emitting device composition and light emitting devices using the same

IN Murase, Seiichiro; Tominaga, Tsuyoshi; Kohama, Akira

PA Toray Industries, Inc., Japan

SO Eur. Pat. Appl., 54 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1253151	A1	20021030	EP 2002-252947	20020425
	EP 1253151	B1	20050112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	TW 565604	B	20031211	TW 2002-91107585	20020415
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	JP 2003012676	A	20030115	JP 2002-117229	20020419
	JP 4000893	B2	20071031		
	US 2003082406	A1	20030501	JP 2001-127311	A 20010425
	US 6805978	B2	20041019	US 2002-126652	20020422
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	SG 121713	A1	20060526	SG 2002-2483	20020424
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	CN 1390841	A	20030115	CN 2002-124569	20020425
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	AT 286903	T	20050115	AT 2002-252947	20020425
				JP 2001-127311	A 20010425
				JP 2001-158325	A 20010528
	CN 1690162	A	20051102	CN 2005-10071206	20020425
				JP 2001-127311	A 20010425
				CN 2002-124569	A3 20020425
	JP 2003086379	A	20030320	JP 2002-150546	20020524
				JP 2001-158325	A 20010528

OS MARPAT 137:343709

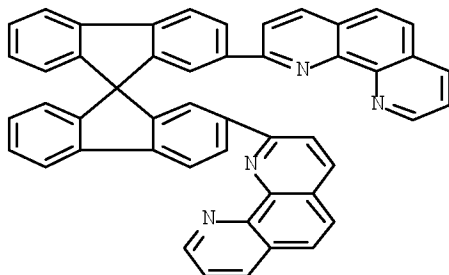
IT 252878-73-2P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(pyrromethene metal complexes and light-emitting device compns. and the devices)

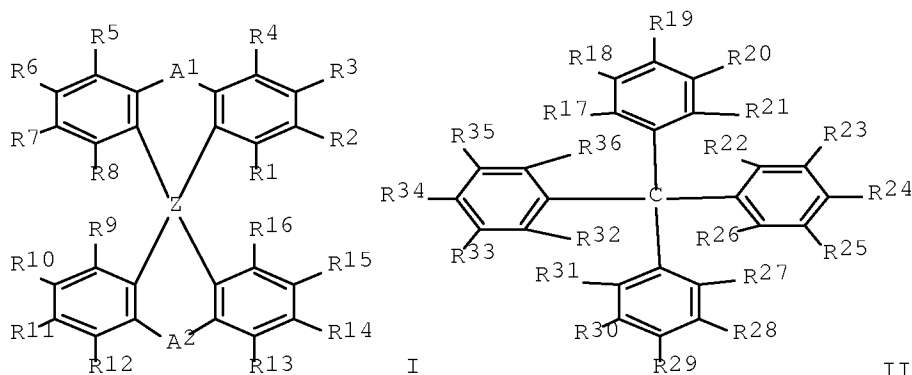
RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The invention refers to an electroluminescent material comprising at least one of the following: a compound with 1,7-phenanthroline skeletons, a benzoquinoline derivative, a spiro-compound I and a tetraphenylmethane derivative II [A1,2 = single bond, (un)substituted alkyl, ether thioether ketone amino chain, A1 \neq A2; Z = C or Si; R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings; R17-36 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings, wherein at least one of R17-36 is -XAr; X = single bond, -(CH₂)_n-, O, S, -(Ph)_n- or trivalent phosphor oxide; Ar = condensed aromatic or heterocyclic, and when X = trivalent phosphor oxide, Ar = aromatic hydrocarbon or heterocyclic].

AN 2002:408990 CAPLUS Full-text

DN 136:393083

TI Electroluminescent material and component

IN Tominaga, Tsuyoshi; Kitazawa, Daisuke; Makiyama, Aki; Kohama, Akira

PA Toray Industries, Inc., Japan

SO PCT Int. Appl., 77 pp.

CODEN: PIXXD2

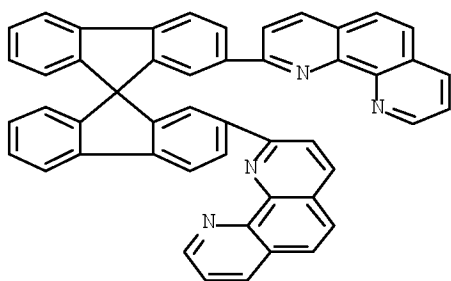
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2002043449	A1	20020530	WO 2001-JP10214	20011122
	W: CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE, TR				

			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
JP 2002222697	A	20020809	JP 2001-357312		20011122
JP 3899907	B2	20070328			
			JP 2000-357129	A	20001124
EP 1341403	A1	20030903	EP 2001-997977		20011122
			R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR		
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			WO 2001-JP10214	W	20011122
TW 572993	B	20040121	TW 2001-90128901		20011122
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
CN 1658724	A	20050824	CN 2005-10058976		20011122
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
CN 1956237	A	20070502	CN 2006-10143103		20011122
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			CN 2001-804068	A3	20011122
CN 1956238	A	20070502	CN 2006-10143104		20011122
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			CN 2001-804068	A3	20011122
JP 2003059669	A	20030228	JP 2002-163997		20020605
			JP 2001-173610	A	20010608
US 2003168970	A1	20030911	US 2002-221342		20020911
US 7318966	B2	20080115			
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			WO 2001-JP10214	W	20011122
KR 2007118711	A	20071217	KR 2007-727441		20071126
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			WO 2001-JP10214	W	20011122
			KR 2002-709422	A3	20020723
KR 2007118712	A	20071217	KR 2007-727442		20071126
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			WO 2001-JP10214	W	20011122
			KR 2002-709422	A3	20020723
KR 2008003446	A	20080107	KR 2007-727443		20071126
			JP 2000-357129	A	20001124
			JP 2001-173610	A	20010608
			WO 2001-JP10214	W	20011122
			KR 2002-709422	A3	20020723
OS	MARPAT 136:393083				
IT	252878-73-2				
	RL: DEV (Device component use); USES (Uses)				
	(luminescent material and component)				
RN	252878-73-2 CAPLUS				
CN	1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA				
	INDEX NAME)				

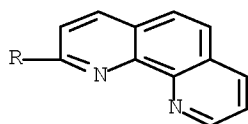
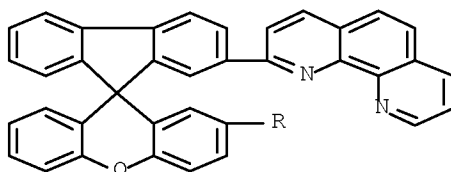


IT 427375-38-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(luminescent material and component)

RN 427375-38-0 CAPLUS

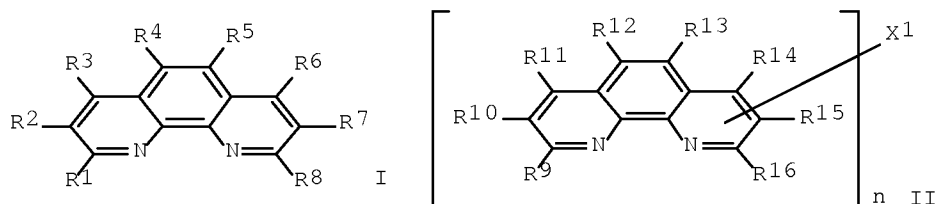
CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-diyl)bis- (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

GI

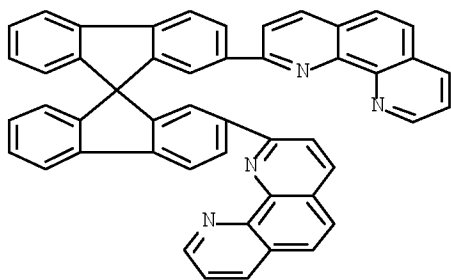


AB The devices comprise a pair of electrodes interposing a phosphor layer containing a phenanthroline derivs. I and II (R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, OH, SH, alkoxy, alkylthio, aryether,

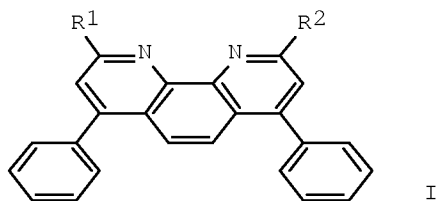
arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, CN, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl; $n \geq 2$; and X1 = single bond, bonding between phenanthroline groups).

AN 2001:712868 CAPLUS Full-text
 DN 135:280166
 TI Organic electroluminescent devices
 IN Tominaga, Takeshi; Makiyama, Akira; Kohama, Toru
 PA Toray Industries, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001267080	A	20010928	JP 2000-372543	20001207
				JP 2000-6933	A 20000114
OS	MARPAT 135:280166				
IT	252878-73-2				
	RL: DEV (Device component use); USES (Uses)				
	(organic electroluminescent devices)				
RN	252878-73-2 CAPLUS				
CN	1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)				



L4 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 GI



AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)saturated

(un)substituted hydrocarbon groups provided that ≥ 1 of R1 and R2 has ≥ 2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for preparing the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compound. The compds. may be used as organic layers (e.g., charge transport layers) in electroluminescent devices.

AN 2001:338137 CAPLUS Full-text

DN 134:346297

TI Bathophenanthroline compound and process for preparing same

IN Shibamura, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro

PA Sony Corporation, Japan

SO Eur. Pat. Appl., 64 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 1097980	A2	20010509	EP 2000-123668	20001030
	EP 1097980	A3	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001131174	A	20010515	JP 1999-312071	A 19991102
	US 6972334	B1	20051206	JP 1999-312071	19991102
				US 2000-704968	20001102
				JP 1999-312071	A 19991102
	US 2005073641	A1	20050407	US 2003-656659	20030905
				JP 1999-312071	A 19991102
	US 2004265626	A1	20041230	US 2000-704968	A1 20001102
	US 7186469	B2	20070306	US 2004-798820	20040311
				JP 1999-312071	A 19991102
				US 2000-704968	A1 20001102
	US 2005154208	A1	20050714	US 2005-62076	20050221
				JP 1999-312071	A 19991102
				US 2000-704968	A1 20001102
				US 2003-656659	A3 20030905

PATENT FAMILY INFORMATION:

FAN 2001:261095

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1090911	A2	20010411	EP 2000-121754	20001005
	EP 1090911	A3	20010808		
	EP 1090911	B1	20060830		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 1999-285254	A 19991006
	JP 2001106657	A	20010417	JP 1999-285254	19991006
	US 7049470	B1	20060523	US 2000-680371	20001005
				JP 1999-285254	A 19991006
	US 2006178522	A1	20060810	US 2005-153878	20050615
	US 7196225	B2	20070327		
				JP 1999-285254	A 19991006
				US 2000-680371	A1 20001005

FAN 2001:269310

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001106658	A	20010417	JP 1999-285255	19991006
	EP 1092704	A2	20010418	EP 2000-121753	20001005
	EP 1092704	A3	20010425		

EP 1092704 B1 20060308
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

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US 6492557	B1	20021210	US 2000-680386		20001005
			JP 1999-285254	A	19991006
			JP 1999-285255	A	19991006
US 2003069448	A1	20030410	US 2002-231355		20020829
US 6727379	B2	20040427			
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US 2003073867	A1	20030417	US 2002-231419		20020829
US 6897341	B2	20050524			
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US 2003204115	A1	20031030	US 2003-389787		20030317
US 6790974	B2	20040914			
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			US 2000-680386	A3	20001005
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US 2003212289	A1	20031113	US 2003-390381		20030317
US 6765108	B2	20040720			
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US 2003220523	A1	20031127	US 2003-392435		20030319
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US 2005052133	A1	20050310	US 2004-955792		20040930
			JP 1999-285255	A	19991006
			US 2000-680386	A3	20001005
			US 2000-704968	A3	20001102
			US 2002-231419	A3	20020829
US 2005215811	A1	20050929	US 2005-105082		20050413
US 7087310	B2	20060808			
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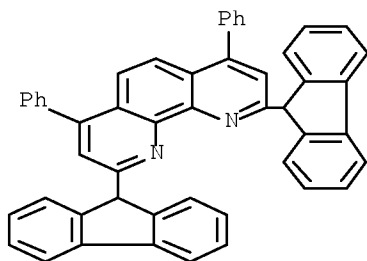
OS MARPAT 134:346297

IT 338734-80-8P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (bathophenanthroline derivs. and their preparation and use in
 electroluminescent devices)

RN 338734-80-8 CAPLUS

CN 1,10-Phenanthroline, 2,9-di-9H-fluoren-9-yl-4,7-diphenyl- (CA INDEX NAME)



L4 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Two new dyads were synthesized in which terminal Ru(II) and Os(II) polypyridine complexes are separated by sterically constrained spiro bridges. The photophys. properties of the corresponding mononuclear complexes indicate the importance of the decay of the lowest-energy triplet states localized on the metallo fragments through the higher-energy metal-centered excited states. This effect is minimized at 77 K, where triplet lifetimes are relatively long, and for the Os(II)-based systems relative to their Ru(II)-based counterparts. Intramol. triplet energy transfer takes place from the Ru(II)-based fragment to the appended Os(II)-based unit, the rate constant being dependent on the mol. structure and on temperature. In all cases, the exptl. rate constant matches surprisingly well with the rate constant calculated for Forster-type dipole-dipole energy transfer. As such, the disparate rates shown by the two compds. can be attributed to stereochem. factors. Further the spiro bridging unit does not favor through-bond electron exchange interactions, a situation confirmed by cyclic voltammetry.

AN 2000:463590 CAPLUS [Full-text](#)

DN 133:216829

TI Mono- and Dinuclear Ruthenium(II) and Osmium(II) Polypyridine Complexes Built around Spiro-Bridged Bis(phenanthroline) Ligands: Synthesis, Electrochemistry, and Photophysics

AU Juris, Alberto; Prodi, Luca; Harriman, Anthony; Ziessel, Raymond; Hissler, Muriel; El-ghayoury, Abdelkrim; Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.

CS Dipartimento di Chimica G. Ciamician, Universita di Bologna, Bologna, 40126, Italy

SO Inorganic Chemistry (2000), 39(16), 3590-3598
CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

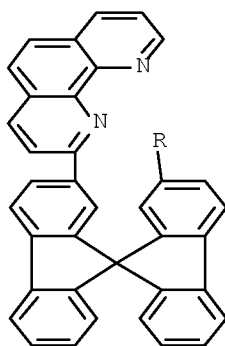
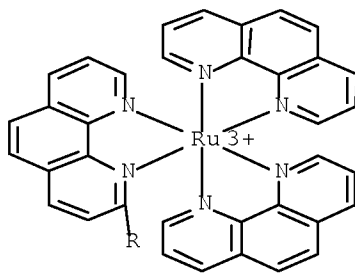
DT Journal

LA English

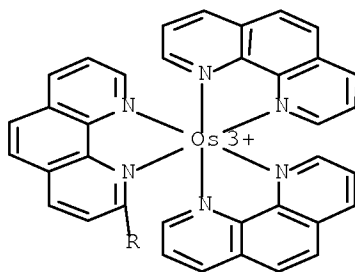
IT 289912-28-3 289912-29-4 289912-43-2
289912-45-4 289912-47-6 289912-49-8
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(elec. potential of couple containing)

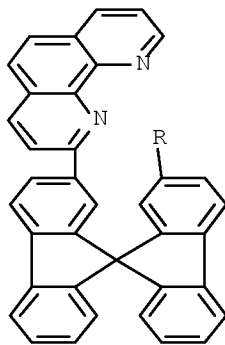
RN 289912-28-3 CAPLUS

CN Ruthenium(3+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthroline-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)



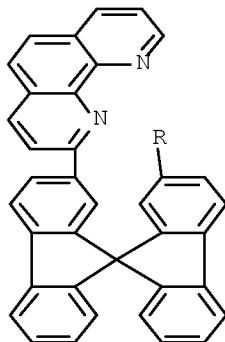
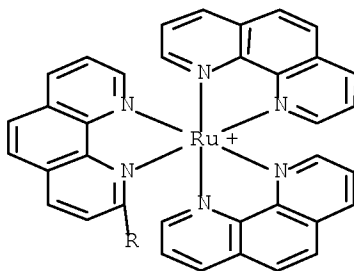
RN 289912-29-4 CAPLUS
 CN Osmium(3+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)





RN 289912-43-2 CAPLUS

CN Ruthenium(1+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

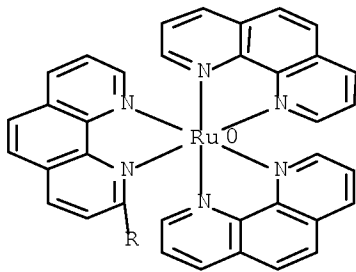


RN 289912-45-4 CAPLUS

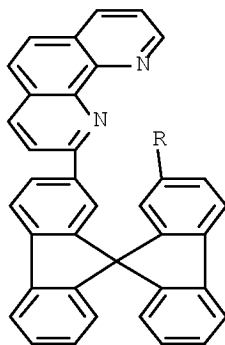
CN Ruthenium, bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-

$\kappa N1, \kappa N10$]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



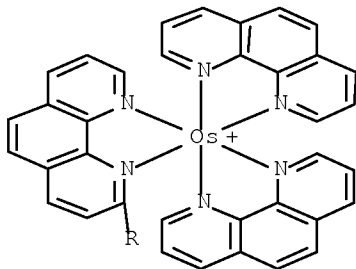
PAGE 2-A



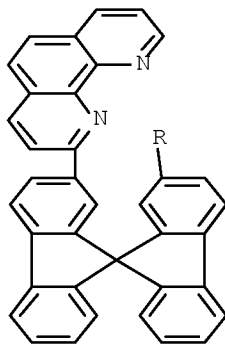
RN 289912-47-6 CAPLUS

CN Osmium(1+), bis(1,10-phenanthroline- $\kappa N1, \kappa N10$) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline- $\kappa N1, \kappa N10$]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



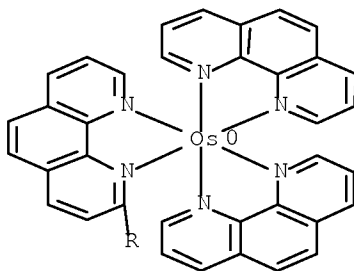
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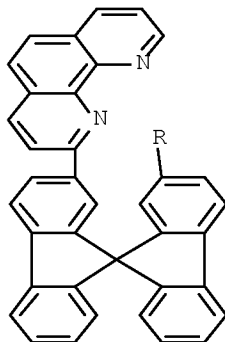
RN 289912-49-8 CAPLUS

CN Osmium, bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 253141-13-8P

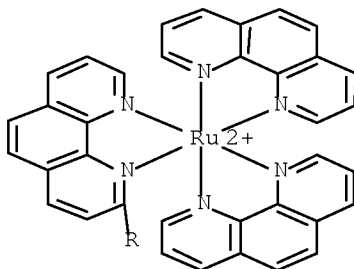
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, electrochem. redox and photophysics)
 RN 253141-13-8 CAPLUS
 CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI)
 (CA INDEX NAME)

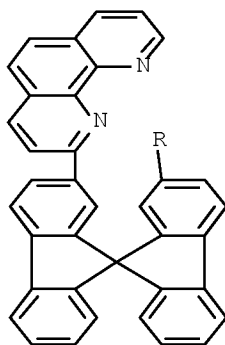
CM 1

CRN 253141-12-7
 CMF C73 H44 N8 Ru
 CCI CCS

PAGE 1-A

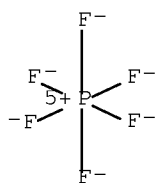


PAGE 2-A



CM 2

CRN 16919-18-9
 CMF F6 P
 CCI CCS



IT 289912-18-1P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation, electrochem. redox, photophysics and reaction to give heterodinuclear ruthenium(II)-osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

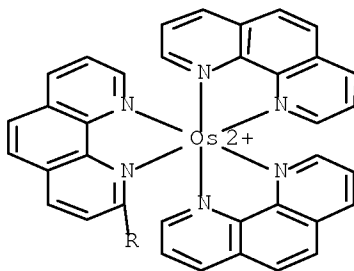
RN 289912-18-1 CAPLUS

CN Osmium(2+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI)
 (CA INDEX NAME)

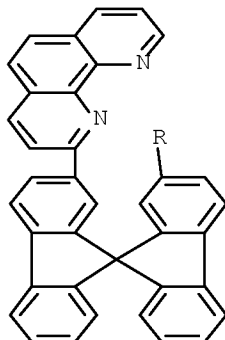
CM 1

CRN 289912-17-0
 CMF C73 H44 N8 Os
 CCI CCS

PAGE 1-A



PAGE 2-A

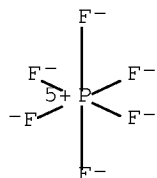


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



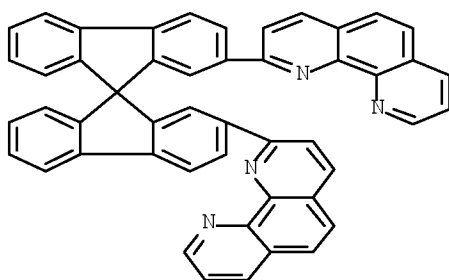
IT 252878-73-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant for preparation of mono- and dinuclear ruthenium(II) and osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The syntheses of novel sol. ditopic 1,10-phenanthroline ligands bearing a central spiro-[5.5]undecane or a spiro-[5.5]bifluorylidene fragment are reported. The synthetic approach is based on a Friedlander condensation between 8-amino-7-quinolinecarboxaldehyde and either 3,9-diketospiro[5.5]undecane or 2,2'-diacetylspiro[5.5]bifluorylidene derivs. Reaction of the latter with phenylhydrazine and subsequent cyclization afforded 2,2'-di-(2"-indolyl)-[5.5]spirobifluorylidene. The photophys. properties of the new compds. are briefly discussed and Ru(II) and Cu(I) complexes were prepared

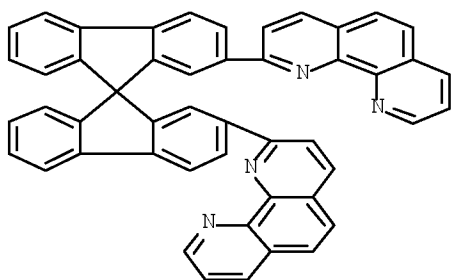
AN 1999:655149 CAPLUS Full-text

DN 132:64193

TI Closely-spaced chelating centers: synthesis of novel spiro-bridged bis-phenanthrolines and bis-indole derivatives

AU Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.; Juris, Alberto; Hissler, Muriel; El-Ghayoury, Abdelkrim; Ziessel, Raymond

CS Department of Chemistry, University of Houston, Houston, TX, 77204-5641, USA
 SO Tetrahedron Letters (1999), 40(41), 7311-7314
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 132:64193
 IT 252878-73-2P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of spirocyclic bis(phenanthrolines) and bis(indoles))
 RN 252878-73-2 CAPLUS
 CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)

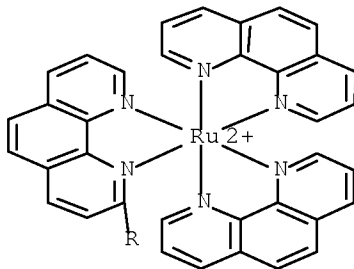


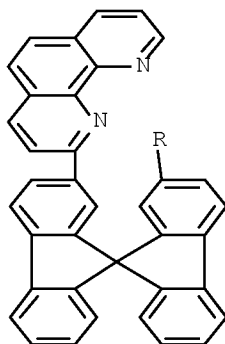
IT 253141-13-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of spirocyclic bis(phenanthrolines) and bis(indoles))
 RN 253141-13-8 CAPLUS
 CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10) [2-[2'-(1,10-phenanthroline-2-yl)-9,9'-spirobi[9H-fluorene]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI)
 (CA INDEX NAME)

CM 1

CRN 253141-12-7
 CMF C73 H44 N8 Ru
 CCI CCS

PAGE 1-A



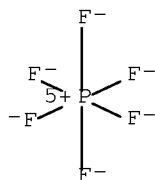


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The macrocyclization between buckminsterfullerene, C₆₀, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C₆₀ with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C₆₀ under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same

method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH₂Cl₂ showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction. In CH₂Cl₂, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π -chromophore and a larger raise in LUMO energy in the former derivs.

AN 1997:727152 CAPLUS Full-text

DN 128:75385

TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives

AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice

CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.

SO Helvetica Chimica Acta (1997), 80(7), 2238-2276

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 128:75385

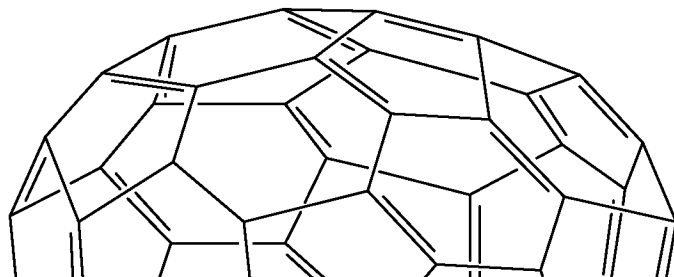
IT 200353-01-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

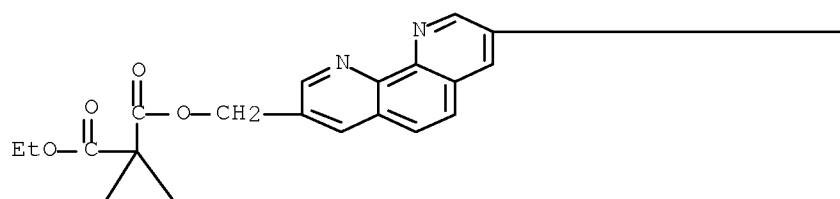
(preparation of fullerene dendrimers and multifunctionalized fullerenes by macrocyclization on fullerene core and redox properties thereof)

RN 200353-01-1 CAPLUS

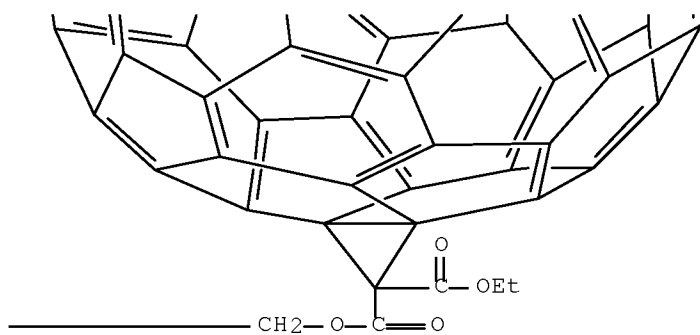
CN 3'H-Cyclopropa[1,9:16,17][5,6]fullerene-C60-1h-3',3'-dicarboxylic acid, 1,10-phenanthroline-3,8-diylbis(methylene) diethyl ester (9CI) (CA INDEX NAME)

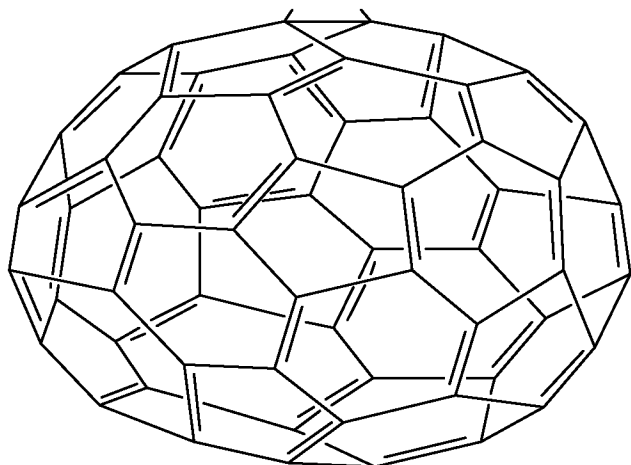


PAGE 2-A

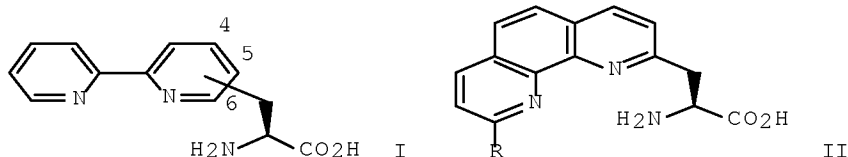


PAGE 2-B





L4 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α -amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α -amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrolyl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid β -carbon are observed. Additionally, the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation constants ranging from 10^{-3} to $<10^{-6}$ M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

AN 1996:657128 CAPLUS [Full-text](#)

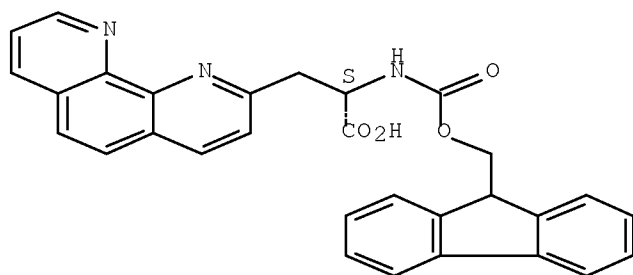
DN 126:19209

TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural Amino Acids and Peptide Secondary Structure

AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara

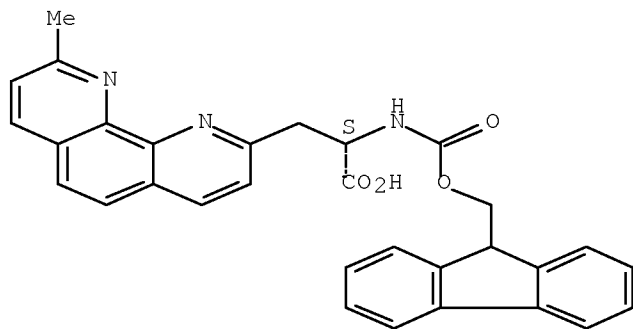
CS Division of Chemistry and Chemical Engineering, California Institute of
 Technology, Pasadena, CA, 91125, USA
 SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 126:19209
 IT 176435-49-7P 184152-94-1P
 RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological
 study); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and metal binding of bipyridylalanine- and
 phenanthrolylalanine-
 containing peptides)
 RN 176435-49-7 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[9H-fluoren-9-
 ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 184152-94-1 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[9H-fluoren-9-
 ylmethoxy)carbonyl]amino]-9-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



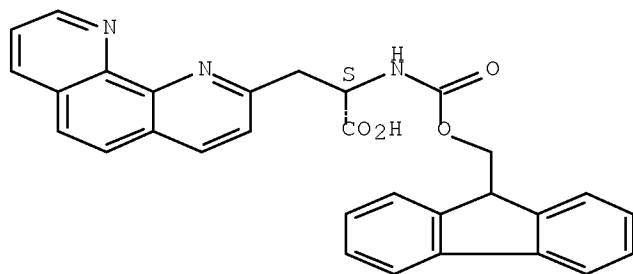
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB An iterative design process involving the synthesis and structural analyses of
 five polypeptides patterned after the zinc finger domains is described. This

process has led to the development of a metal-independent 23-residue folded $\beta\beta\alpha$ peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthroline-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is 0.9 ± 0.3 Å. Anal. of the resulting structure reveals that the α -helix and β -hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β -hairpin formation; a control peptide, in which the β -turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text
 DN 124:317843
 TI Economy in Protein Design: Evolution of a Metal-Independent
 $\beta\beta\alpha$ Motif Based on the Zinc Finger Domains
 AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara
 CS Division of Chemistry and Chemical Engineering, California Institute of
 Technology, Pasadena, CA, 91125, USA
 SO Journal of the American Chemical Society (1996), 118(13), 3073-81
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 IT 176435-49-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and conformation of metal-free zinc finger peptide model)
 RN 176435-49-7 CAPLUS
 CN 1,10-Phenanthroline-2-propanoic acid, α -[[[9H-fluoren-9-ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



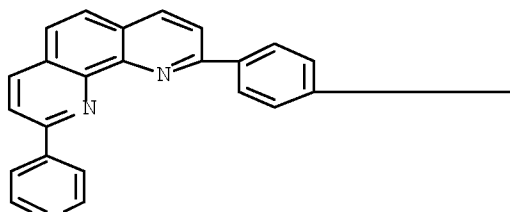
L4 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB A three-component complex consisting of a coordinating ring, a copper(I) center and a difunctionalized fragment threaded inside the ring is reacted with a C60 derivative to afford a soluble rotaxane with two fullerenes as stoppers in 15% yield.

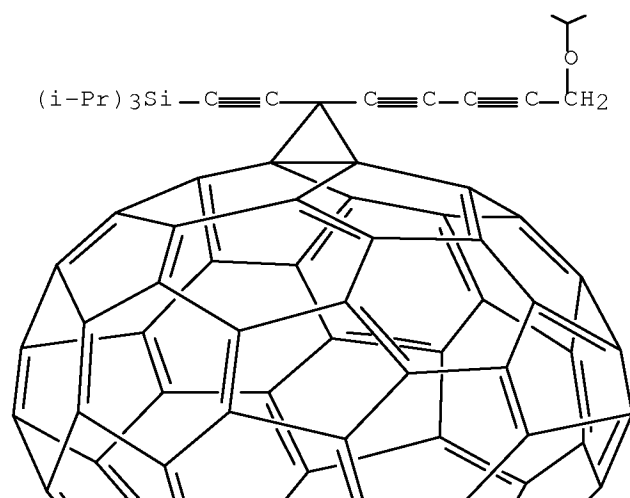
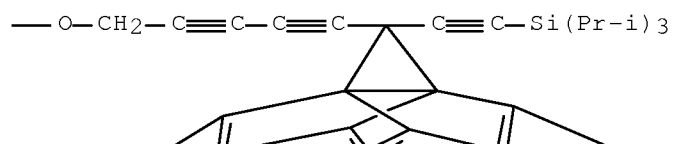
AN 1995:510099 CAPLUS Full-text
 DN 122:305209
 TI A copper(I)-complexed rotaxane with two fullerene stoppers
 AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten,
 Jean-Francois; Sauvage, Jean-Pierre
 CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
 SO Journal of the Chemical Society, Chemical Communications (1995), (7),
 781-2
 CODEN: JCCCAT; ISSN: 0022-4936
 PB Royal Society of Chemistry
 DT Journal
 LA English
 IT 163236-31-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 163236-31-5 CAPLUS
 CN 2,29:3,6:20,23:24,26-Tetraetheno-7,10,13,16,19,1,25-
 benzopentaoxadiazacycloheptacosine, 8,9,11,12,14,15,17,18-octahydro-,
 compd. with 2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-
 cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-
 1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

 CM 1

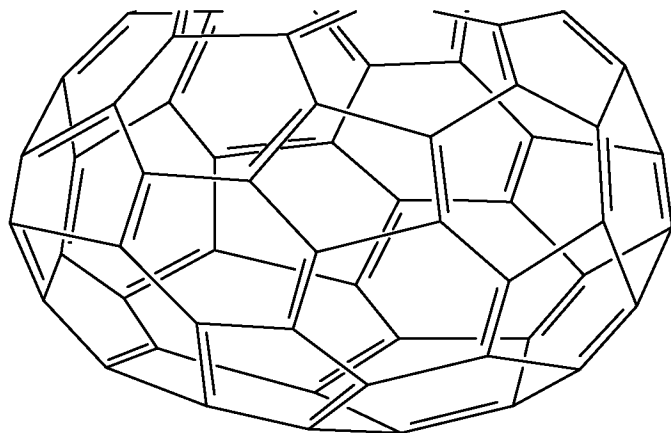
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 CMF C178 H60 N2 O2 Si2

PAGE 1-A

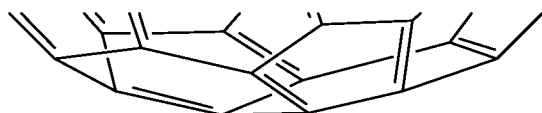




PAGE 2-B



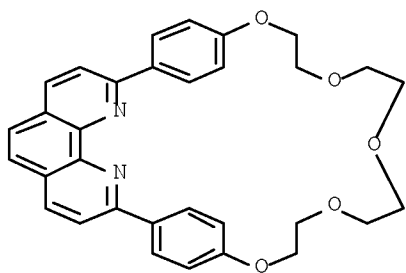
PAGE 3-A



CM 2

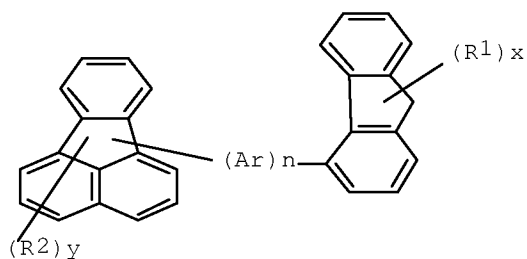
CRN 89333-98-2

CMF C32 H30 N2 O5



=> d abs fbib hitstr 1-29

L4 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The present invention provides a high-performance org. light-emitting device based on a novel 4-arylfluorene organic compound having the following general formula (I); where n represents an integer of 0 to 10; when n represents 0, Ar represents a direct bond between a fluorene group and a fluoranthene group; when n represents an integer of 1 to 10, Ar represents a substituted or unsubstituted, divalent alkylene group, a substituted or unsubstituted, divalent aralkylene group, a substituted or unsubstituted, divalent arylene group, or a substituted or unsubstituted, divalent heterocyclic group; when n represents an integer of 1 to 10, Ar's may be the same as or different from each other; R1 and R2 each represent a substituted or unsubstituted group such as alkyl, aralkyl, alkoxy, aryl, heterocyclic, amino; a cyano group, or a halogen group, and R1 and R2 may be the same as or different from each other; x and y each represent an integer of 0 to 9; and when x or y represents an integer of 2 or more, R1s or R2s may be the same as or different from each other, or R1s or R2s may be bonded to each other to form a ring. The organic light-emitting device of the present invention is an organic light-emitting device including: a pair of electrodes comprising an anode and a cathode; and an organic compound layer interposed between the pair of electrodes, where the organic compound layer contains the 4-arylfluorene compound. Thus, blue-emitting organic light-emitting devices were fabricated and characterized.

AN 2007:1277963 CAPLUS Full-text

DN 147:511324

TI 4-Arylfluorene compound and organic light-emitting devices employing the 4-arylfluorene compound as an emitting layer

IN Yamada, Naoki; Saitoh, Akihito; Kamatani, Jun; Igawa, Satoshi; Okada, Shinjiro

PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 49pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007125809	A1	20071108	WO 2007-JP58476	20070412
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	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,			

BY, KG, KZ, MD, RU, TJ, TM

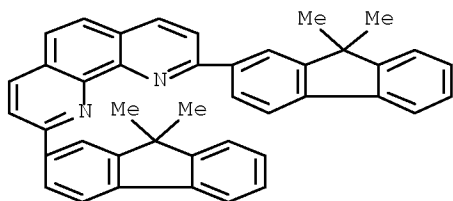
			JP 2006-123784	A	20060427
			JP 2006-310380	A	20061116
JP 2007314506	A	20071206	JP 2006-310380		20061116
			JP 2006-123784	A	20060427

IT 676542-63-5

RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting layer; blue-emitting 4-arylfluorene compound for
use in organic light-emitting devices employing)

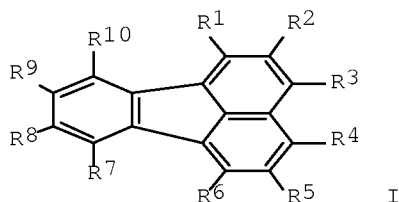
RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB A fluoranthene deriv. represented by the following general formula I is
described where R1-R10 are each independently selected from a hydrogen atom, a
halogen atom, a substituted amino group, a linear or branched alkyl group and
other groups shown in the text. An organic light emitting device comprising
the fluoranthene derivative is also described.

AN 2007:1274215 CAPLUS Full-text

DN 147:511314

TI Fluoranthene derivative and organic light emitting device having the same
IN Hashimoto, Masashi; Saitoh, Akihito; Yamada, Naoki; Igawa, Satoshi;
Kamatani, Jun; Takiguchi, Takao; Okada, Shinjiro

PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 51pp.

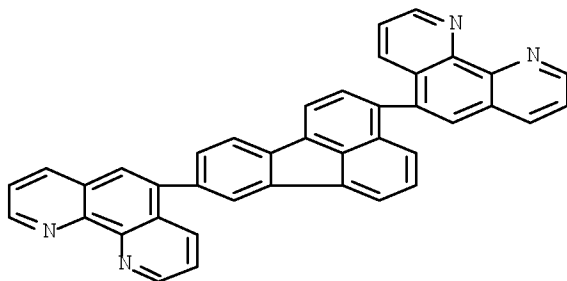
CODEN: PIXXD2

DT Patent

LA English

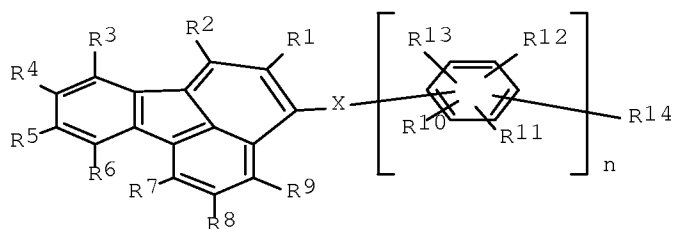
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007126112	A1	20071108	WO 2007-JP59351	20070424
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				JP 2006-123783	A 20060427
				JP 2007-42663	A 20070222
	JP 2007314510	A	20071206	JP 2007-42663	20070222
				JP 2006-123783	A 20060427
IT	955121-26-3P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluoranthene derivative and organic light emitting device having same)				
RN	955121-26-3	CAPLUS			
CN	1,10-Phenanthroline, 5-[3-(1,10-phenanthrolin-5-yl)-8-fluoranthenyl]- (CA INDEX NAME)				



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

AB Fluoranthene derivs. represented by the general formula (I) and org. light-emitting elements using the fluoranthene derivs. as a light-emitting layer or a charge transport layer are provided, where X represents an unsubstituted phenylene group; R1-14 each independently represent a hydrogen atom, a halogen atom, a substituted or an unsubstituted amino group, or a linear, branched, or cyclic alkyl group having 1 to 20 carbon atoms, wherein in the alkyl group, one methylene group or at least two methylene groups which are not adjacent to each other may be substituted with -O-, at least one methylene group may be substituted with an arylene group or a divalent heterocyclic group and a hydrogen atom of the alkyl group may be substituted with a fluorine atom; and n represents an integer from 1 to 10.

AN 2007:1215715 CAPLUS Full-text

DN 147:493783

TI Fluoranthene derivatives and organic light-emitting elements employing the fluoranthene derivatives as a light-emitting layer or a charge transport layer

IN Iwawaki, Hironobu; Negishi, Chika; Okada, Shinjiro; Takiguchi, Takao; Senoo, Akihiro; Hashimoto, Masashi

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 15pp.

CODEN: USXXCO

DT Patent

LA English

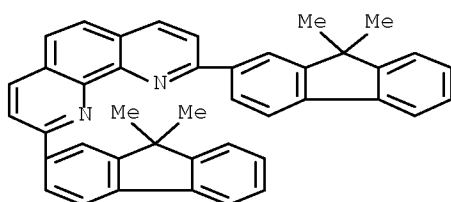
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007249878	A1	20071025	US 2007-737798	20070420
				JP 2006-120805	A 20060425
	JP 2007291012	A	20071108	JP 2006-120805	20060425
IT	676542-63-5				

RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting layer; fluoranthene derivs. and organic light-emitting elements employing the fluoranthene derivs. as light-emitting layer or charge transport layer)

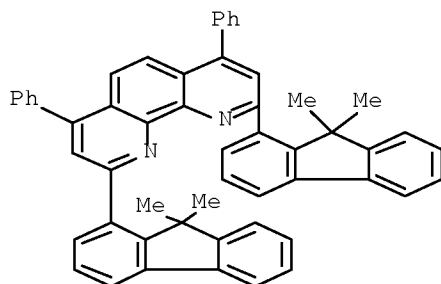
RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB The invention relates to a full color org. light emitting element array having red-, green-, and blue-pixels, wherein the glass transition temperature difference between the pixels is less than 10°.
 AN 2007:1151615 CAPLUS Full-text
 DN 147:459016
 TI Full color organic light emitting element array with improved high temperature performance and durability
 IN Hiraoka, Mitsuho; Senoo, Akihiro
 PA Canon Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 16pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

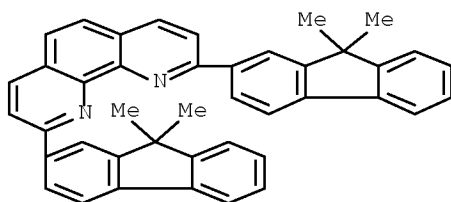
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2007266161	A	20071011	JP 2006-87018	20060328
				JP 2006-87018	20060328
IT	952062-18-9				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(in electron transport layer; full color organic light emitting element array with improved high temperature performance and durability)				
RN	952062-18-9	CAPLUS			
CN	1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-1-yl)-4,7-diphenyl- (CA INDEX NAME)				



L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB An org. electroluminescence device is described comprising a pair of electrodes formed of an anode and a cathode; and an organic compound layer provided between the pair of electrodes, in which the organic electroluminescence device contains a cesium suboxide in which an element ratio A/B calculated from an area ratio of a peak A at a binding energy of 726.0 eV \pm 0.5 eV corresponding to a Cs3d5 orbital measured by XPS to a peak B at a binding energy of 531.0 eV \pm 0.5 eV corresponding to an O1s orbital measured by the XPS is in a range of 3.1-7.3 or preferably 3.1-4.2, where the organic electroluminescence device has excellent light emitting property that is not largely impaired even after the device is driven for a long time period.
 AN 2007:1146673 CAPLUS Full-text
 DN 147:436504
 TI Organic electroluminescence device and light emitting apparatus

IN Nakamura, Shinichi; Miura, Seishi
 PA Canon Kabushiki Kaisha, Japan
 SO PCT Int. Appl., 41pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007113984	A1	20071011	WO 2007-JP54599	20070302
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	JP 2007273702	A	20071018	JP 2006-97177	20060331
IT	676542-63-5			JP 2006-97177	20060331
	RL: TEM (Technical or engineered material use); USES (Uses) (electron injection layer; organic electroluminescence device having organic compound layer containing cesium suboxide)				
RN	676542-63-5 CAPLUS				
CN	1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)				



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

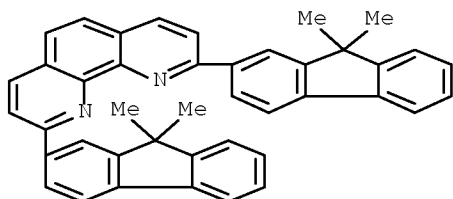
L4 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB A full-color org. electroluminescent panel is described comprising red (R), green (G), and blue (B) color pixels that independently emit light, where the organic electroluminescent panel includes a hole-injecting layer common to the red (R), green (G), and blue (B) color pixels and a plurality of hole-transporting layers, and where the hole-transporting layer in at least one of the red (R), green (G), or blue (B) color pixels differs from a corresponding hole-transporting layer in the remaining pixels.
 AN 2007:1121151 CAPLUS Full-text
 DN 147:437030
 TI Full-color organic electroluminescent panel
 IN Iwawaki, Hironobu; Okada, Shinjiro; Takiguchi, Takao; Igawa, Satoshi

PA Canon Kabushiki Kaisha, Japan
SO U.S. Pat. Appl. Publ., 21pp.
CODEN: USXXCO

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2007228399	A1	20071004	US 2007-689612	20070322
				JP 2006-88353	A 20060328
	JP 2007265763	A	20071011	JP 2006-88353	20060328
IT	676542-63-5				
	RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)				
	(electron-injecting layer; full-color organic electroluminescent panel having common hole-injecting layer and not-common hole-transporting layer)				
RN	676542-63-5	CAPLUS			
CN	1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)				



L4 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB An org. electroluminescent device includes an anode, a cathode, a luminescent layer disposed between the anode and the cathode, and a hole-transporting layer disposed between the anode and the cathode. The luminescent layer includes a first sublayer made of a first metal complex and a second sublayer made of a second metal complex. The second sublayer is disposed further from the hole-transporting layer than the first sublayer.

AN 2007:1120116 CAPLUS Full-text

DN 147:416663

TI Organic electroluminescent device and display apparatus

IN Nakasu, Minako; Igawa, Satoshi; Kamatani, Jun; Ooishi, Ryota; Takiguchi, Takao; Okada, Shinjiro

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 11pp.
CODEN: USXXCO

DT Patent
LA English

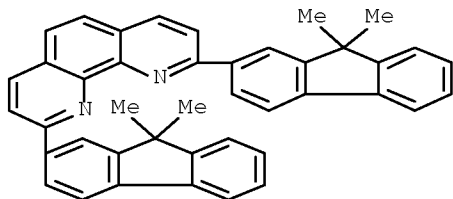
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2007231601	A1	20071004	US 2007-690166	20070323
				JP 2006-87017	A 20060328
				JP 2007-26680	A 20070206
	JP 2007294402	A	20071108	JP 2007-26680	20070206
				JP 2006-87017	A 20060328
IT	676542-63-5				

RL: TEM (Technical or engineered material use); USES (Uses)
(organic electroluminescent device and display apparatus)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
NAME)



L4 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Org. electroluminescent devices are described which comprise a pair of electrodes formed of an anode and a cathode; and an organic compound layer provided between the pair of electrodes, in which: the organic compound layer contains a metal so that the metal partially forms a coordination bond with an organic compound; and a ratio of the number of metal atoms involved in the coordination to the total number of metal atoms in the layer is 0.11 or more to 0.42 or less. The organic electroluminescent device has excellent light emitting property that is not largely impaired even after the device is driven for a long time period.

AN 2007:1120093 CAPLUS Full-text

DN 147:436475

TI Organic electroluminescent device and light emitting apparatus employing an organic layer with partially coordinated metal atoms

IN Nakamura, Shinichi; Miura, Seishi

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 16pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

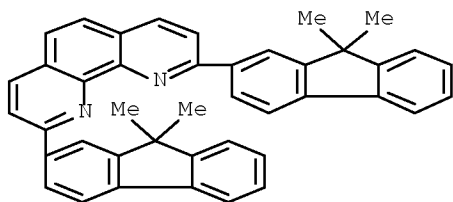
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2007231599	A1	20071004	US 2007-681273	20070302
				JP 2006-97178	A 20060331
	JP 2007273703	A	20071018	JP 2006-97178	20060331
IT	676542-63-5				

RL: TEM (Technical or engineered material use); USES (Uses)

(electron-transporting layer; organic electroluminescent device and light emitting apparatus employing organic layer with partially coordinated metal atoms)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
NAME)



L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB An org. light emitting device array is described comprising org. light emitting devices having each emitting color, the organic light emitting devices each comprising a pair of electrodes, a hole transport layer, a light emitting layer and an electron transport layer, wherein the hole transport layer contacts with the light emitting layer; the light emitting layer contacts with the electron transport layer; and the light emitting layer has a guest material contained in a host material, and wherein each of the organic light emitting devices has an ionization p.d. of not more than 0.2 eV between a material constituting the hole transport layer and the host material and an electron affinity difference of not more than 0.2 eV between a material constituting the electron transport layer and the host material. The organic light emitting device array may further comprise a host material and a hole transport layer, where the electron affinity of host material - electron affinity of the hole transport layer is greater than or equal to 0.2 eV.

AN 2007:1114898 CAPLUS Full-text

DN 147:436412

TI Organic light emitting device array

IN Tanabe, Hiroshi; Senoo, Akihiro; Saitoh, Akihito

PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 38pp.
CODEN: PIXXD2

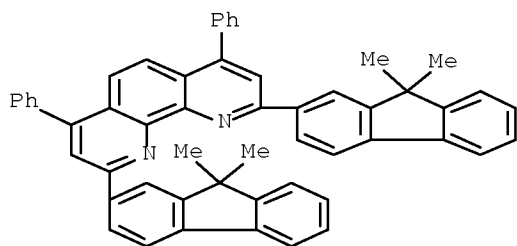
DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007111153	A1	20071004	WO 2007-JP55308	20070309
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2007266160	A	20071011	JP 2006-87015	20060328
676542-59-9			JP 2006-87015	20060328
RL: TEM (Technical or engineered material use); USES (Uses) (electron emitting layer; organic light emitting device array having specific ionization p.d. between hole transport layer and host material)				
RN 676542-59-9	CAPLUS			

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-diphenyl-
(CA INDEX NAME)

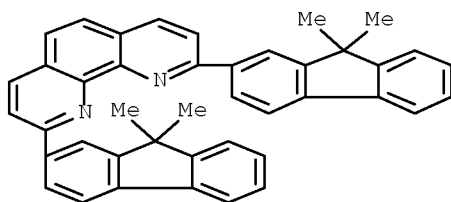


IT 676542-63-5

RL: TEM (Technical or engineered material use); USES (Uses)
(electron injection layer; organic light emitting device array having
specific ionization p.d. between hole transport layer and host
material)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Org. light-emitting devices are described which comprise a substrate including
at least a base material, at least one organic light-emitting element which
includes (a) a pair of electrodes provided on the substrate and an organic
compound layer disposed between the pair of electrodes, and (b) provides a
light-emitting area, an inorg. sealing layer provided on the organic light-
emitting element and the surface of the substrate, and an adhesion layer which
is provided between the substrate and the inorg. sealing layer and only on the
periphery of the light-emitting area for closely contacting the surface of the
substrate and the inorg. sealing layer, and inhibits moisture from intruding
at an edge of the inorg. sealing layer.

AN 2007:1092723 CAPLUS Full-text

DN 147:394903

TI Organic light-emitting device employing an adhesion layer provided between
substrate and inorganic sealing layer on the periphery of the
light-emitting area for inhibiting moisture from intruding at an edge of
the inorganic sealing layer

IN Yamazaki, Takuro; Nagayama, Kohei

PA Canon Kabushiki Kaisha, Japan

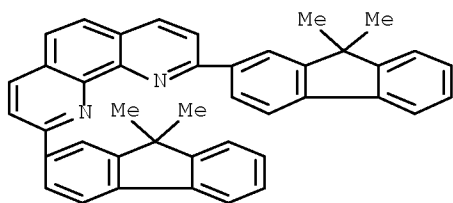
SO U.S. Pat. Appl. Publ., 16pp.

CODEN: USXXCO

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007222382	A1	20070927	US 2007-680514	20070228
				JP 2006-79058	A 20060322
				JP 2007-19470	A 20070130
	JP 2007287660	A	20071101	JP 2007-19470	20070130
				JP 2006-79058	A 20060322
				CN 101043070	A 20070322
		A	20070926	CN 2007-10088800	20070322
JP 2006-79058				A 20060322	
JP 2007-19470				A 20070130	

IT 676542-63-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (OLED employing adhesion layer provided between substrate and inorg.
 sealing layer on periphery of light-emitting area for inhibiting
 moisture from intruding at edge of inorg. sealing layer)
 RN 676542-63-5 CAPLUS
 CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX
 NAME)



L4 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 AB Silylanthracenes (R1R2R3Si)b-Y1a-XcC14H10-a-b-c, preferably 9-(R1R2R3Si)-10-Y2-XcC14H8-c [1; R1-R3 = H, halo, (un)substituted alkyl, aralkyl, aryl, heterocyclyl; X = halo, (un)substituted alkyl, aralkyl alkenyl alkynyl, alkoxy, organylthio, silyl, amino, aryl, heterocyclyl; Y1, Y2 = (un)substituted amino, aminoalkyl, aminoaryl, polycyclic aryl, (poly)cyclic hetaryl], useful as efficient and stable electroluminescent light-emitting compds. or dopants for light-emitting materials for fabrication of organic light-emitting devices, were prepared by Suzuki coupling of silylanthracenes (R1R2R3Si)b-XcC14H10-b-c, preferably of 9-(R1R2R3Si)-10-Br-XcC14H8-c with pinacolboranes (CMe2O)2BY1 or (CMe2O)2BY2. Use of compds. 1 in pure form or in the form of dopants for light-emitting materials, such as substituted (oligo)-2,7-diarylfluorenes (4), 9,9'-spirobifluorenes (5), 7-pyrenyl-2-fluorene(organo)amines (6) and polyaryl(alkyl)benzenes (7; Markush formula for 4-7 claimed) allows fabrication of the light-emitting devices having higher efficiency and lifetime. In an example, compound 1, 9-[4-bis(4-methylphenyl)aminophenyl]-10-(trimethylsilyl)anthracene (1a) was prepared in two steps from 9,10-dibromoanthracene by monosilylation followed by Suzuki coupling with 2-[4-[bis(4-methylphenyl)amino]phenyl]-4,4,5,5-tetramethyl-1,3,2-dioxaborolane. In another example, light-emitting device was fabricated including ITO transparent anode, Al/Li cathode, electron-transporting layer, hole-transporting layer and the 20 nm-thick light-emitting layer, composed from 15:85 mixture of the prepared compound 1a and compound of the type 4, 9,9-dibenzyl-2-(6-pentacenyl)-7-(1-pyrenyl)-9H-fluorene (4a), exhibiting luminance of 380 cd/m2 and efficiency of 3.7 lm/W at 4 V voltage.

AN 2007:993784 CAPLUS Full-text

DN 147:323125

TI Silyl anthracene amines as components and dopants for efficient and stable light-emitting materials in manufacture of electroluminescent organic light emitting devices

IN Saitoh, Akihito; Yashima, Masataka

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 68pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

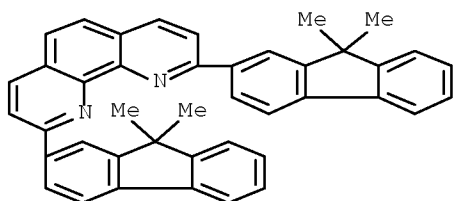
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2007205715	A1	20070906	US 2007-677925	20070222
				JP 2006-56958	A 20060302
	JP 2007230951	A	20070913	JP 2006-56958	20060302
OS	MARPAT 147:323125				
IT	676542-63-5				

RL: TEM (Technical or engineered material use); USES (Uses)

(electron-transporting material; preparation of silyl anthracene arylamino derivs. as electroluminescent components and dopants for manufacturing of organic light-emitting devices of high efficiency and lifetime)

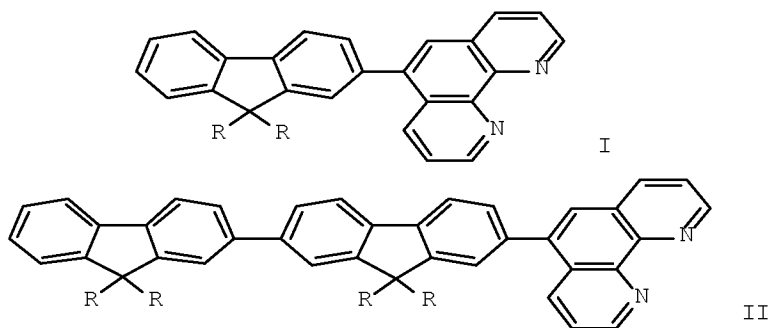
RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

GI



AB Two new fluorene derivatized 1,10-phenanthroline ligands (I, II; R = hexyl) and their tris-chelate Ru(II) and Zn(II) coordination complexes were synthesized. The linear and nonlinear (two-photon induced fluorescence) photophys. measurements have contributed to highlight the possibility to tune the absorption spectral range and excited lifetime, depending on ligand substitution and nature of the metal. More significantly, the observation of two-photon absorption (TPA) associated with long-lived metal-to-ligand charge-transfer (MLCT) excited states in the Ru(II)-based chromophores, opens a wide range of applications in the near IR.

AN 2007:830097 CAPLUS Full-text

DN 147:397082

TI Novel ruthenium(II) and zinc(II) complexes for two-photon absorption related applications

AU Girardot, C.; Lemerrier, G.; Mulatier, J.-C.; Chauvin, J.; Baldeck, P. L.; Andraud, C.

CS Laboratoire de Chimie, CNRS/ENS-Lyon, Lyon, 69364, Fr.

SO Dalton Transactions (2007), (31), 3421-3426

CODEN: DTARAF; ISSN: 1477-9226

PB Royal Society of Chemistry

DT Journal

LA English

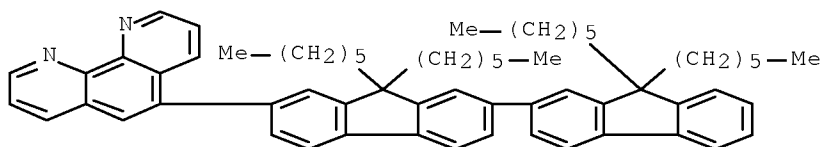
IT 873096-72-1P 950692-69-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and photophys. properties of ruthenium(II) and zinc(II) (dihexylfluorenyl)phenanthroline and ((dihexylfluorenyl)dihexylfluorenyl)phenanthroline complexes for possible two-photon absorption related applications)

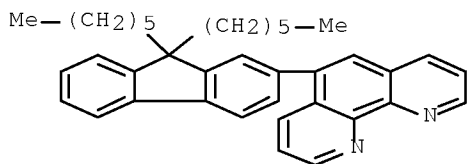
RN 873096-72-1 CAPLUS

CN 1,10-Phenanthroline, 5-(9,9,9',9'-tetrahexyl[2,2'-bi-9H-fluoren]-7-yl)-(CA INDEX NAME)



RN 950692-69-0 CAPLUS

CN 1,10-Phenanthroline, 5-(9,9-dihexyl-9H-fluoren-2-yl)-(CA INDEX NAME)



RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The subject matter disclosed herein generally relates to org. light-emitting materials A-(L-Og)p (A = a hole-conducting core, an electron-conducting core, or a non-conducting core; L = an aliphatic linker; Og = a conjugated oligomer; p = 1-10) and methods for their preparation and use. Also, devices involve organic light emitting materials are disclosed.

AN 2007:534830 CAPLUS Full-text

DN 146:531624

TI Light-emitting organic materials

IN Chen, Shaw H.; Chen, Andrew Chien-An; Wallace, Jason U.; Zeng, Lichang

PA USA

SO U.S. Pat. Appl. Publ., 90pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2007111027	A1	20070517	US 2006-494854	20060728
				US 2005-703908P	P 20050729

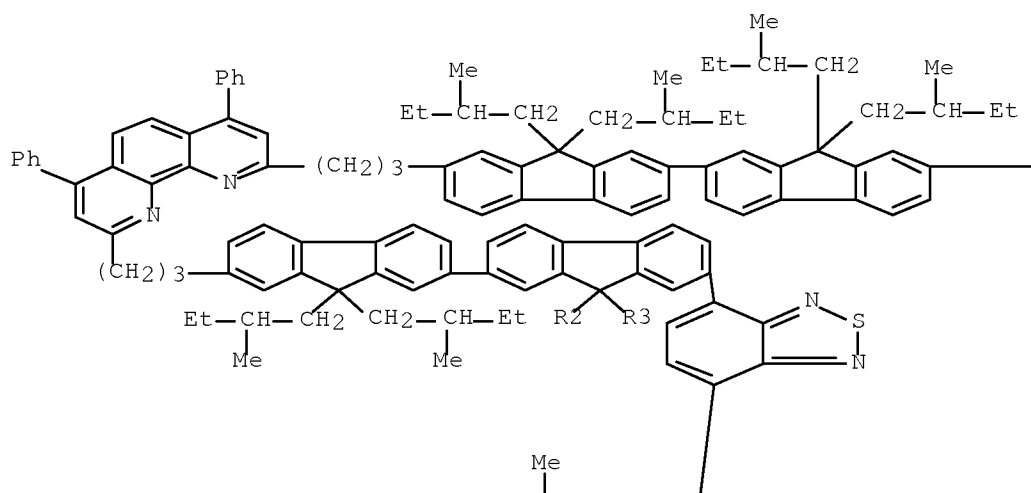
IT 937009-36-4P

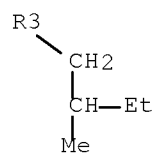
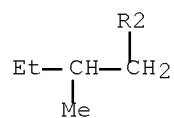
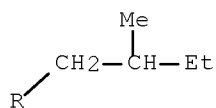
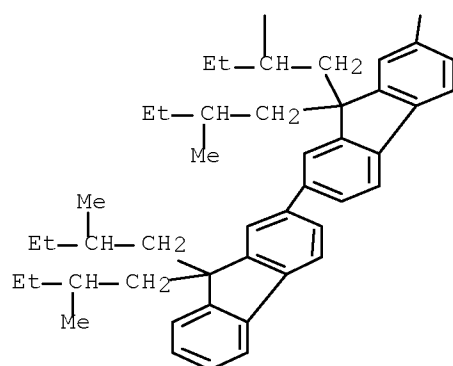
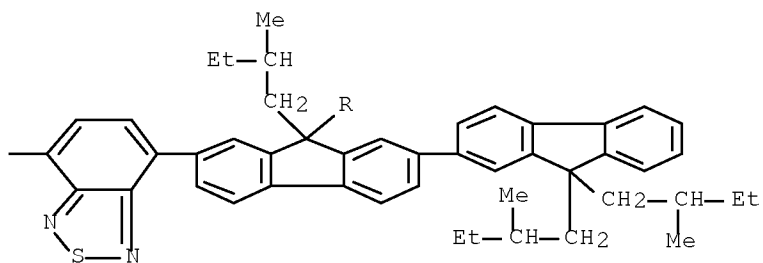
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation and use of light-emitting organic materials)

RN 937009-36-4 CAPLUS

CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis[3-[9,9,9',9'-tetrakis(2-methylbutyl)-7'-[7-[9,9,9',9'-tetrakis(2-methylbutyl)[2,2'-bi-9H-fluoren]-7-yl]-2,1,3-benzothiadiazol-4-yl][2,2'-bi-9H-fluoren]-7-yl]propyl]- (CA INDEX NAME)

PAGE 1-A





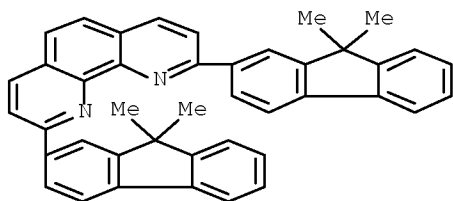
L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The invention relates to an org. light-emitting device, comprising a first active layer and a second active layer fabricated between an anode and a cathode, wherein the HOMO (LUMO) energy level of the main compound in the

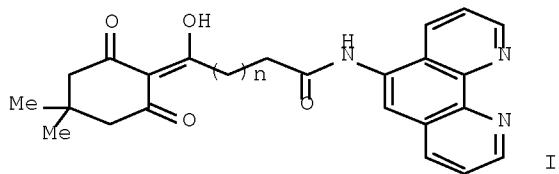
first active layer is greater than that of the main compound in the second active layer located at the cathode side and the recombination region spreads in the both active layers, centering the boundary between the first and the second active layer.

AN 2007:409195 CAPLUS Full-text
 DN 146:411169
 TI Organic light-emitting device
 IN Okinaka, Keiji; Saito, Akito; Yamada, Naoki
 PA Canon Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 22pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2007096023	A	20070412	JP 2005-283895	20050929
				JP 2005-283895	20050929
IT	676542-63-5				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(electron transport layer; organic light-emitting device)				
RN	676542-63-5 CAPLUS				
CN	1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-				(CA INDEX NAME)



L4 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 GI



AB The invention relates to a method for solid-phase peptide synthesis using an activated solid phase which is coordinatively and reversibly attached to a peptide-conjugated anchoring part. Claimed peptides have formula P-X-L, where P is the peptidyl part which optionally may comprise further non-peptide moieties or protection groups, X is a linker or amino acid protection group (with the proviso that X is not an amino acid monomer or peptide), and L is a metal chelating group. The group X-L may be further defined as structure I (n = 1-30). Thus, I (n = 7; Tag18) acetate was prepared and coupled to the N-

terminal end of a peptide during solid-phase synthesis. Metal affinity purification and cleavage of the Tag with hydrazine afforded peptide H-STKKTQLQLEHLLLDLQMILNGINN-CO-NH₂.

AN 2006:515970 CAPLUS Full-text

DN 145:8474

TI Method for solid-phase peptide synthesis and purification

IN Frank, Hans-Georg; Casaretto, Monika; Knorr, Karsten

PA Lonza A.-G., Switz.; Aplagen G.m.b.H.

SO PCT Int. Appl., 41 pp.

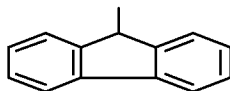
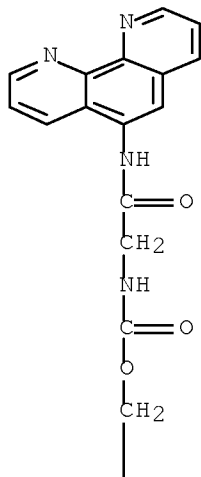
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2006056443	A2	20060601	WO 2005-EP12576	20051124
	WO 2006056443	A3	20070405		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
				EP 2004-27817	A 20041124
				EP 2004-27840	A 20041124
				WO 2005-IB675	A 20050316
EP 1831241	A2	20070912	EP 2005-821714		20051124
	R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU			
				EP 2004-27817	A 20041124
				EP 2004-27840	A 20041124
				WO 2005-IB675	A 20050316
				WO 2005-EP12576	W 20051124
OS	MARPAT 145:8474				
IT	888315-11-SP				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)				
	(solid-phase peptide synthesis and purification)				
RN	888315-11-5 CAPLUS				
CN	Carbamic acid, [2-oxo-2-(1,10-phenanthrolin-5-ylamino)ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)				



L4 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Two fullerene-substituted m-phenylene-bis-phenanthroline ligands have been prepared. The synthesis of the first derivative (L1) is based on an esterification reaction between a Cs sym. cis-2 fullerene bis-adduct bearing a carboxylic acid function and a bis-phenanthroline alc. (5). The second ligand (L2) has been obtained by reaction of a bis-phenanthroline malonate (9) and C60 under Bingel conditions. The copper(I) complexes of L1 and L2 have been prepared by treatment with a slight excess of Cu(CH3CN)4BF4. NMR spectroscopy and mass spectrometry anal. have unambiguously shown that these complexes are bis-copper(I) helicates substituted with two fullerene moieties. The photophys. properties of the copper(I) complexes Cu2(L1)2 and Cu2(L2)2 have been investigated. In both systems photoinduced electron transfer from the central metal-complexed unit to the external fullerenes may occur, in principle, by excitation of both moieties. However, this is found to be the case only for the methanofullerene system Cu2(L2)2. Unexpectedly, for Cu2(L1)2, photoexcitation of the peripheral carbon spheres is followed by regular internal deactivation. Possible reasons for this behavior are examined in light of current theories for photoinduced energy and electron transfer.

AN 2006:115684 CAPLUS Full-text

DN 144:378849

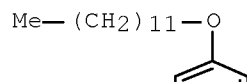
TI Synthesis of fullerohelicates and fine tuning of the photoinduced processes by changing the number of addends on the fullerene subunits

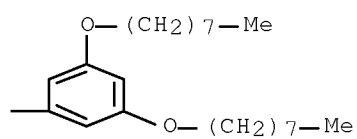
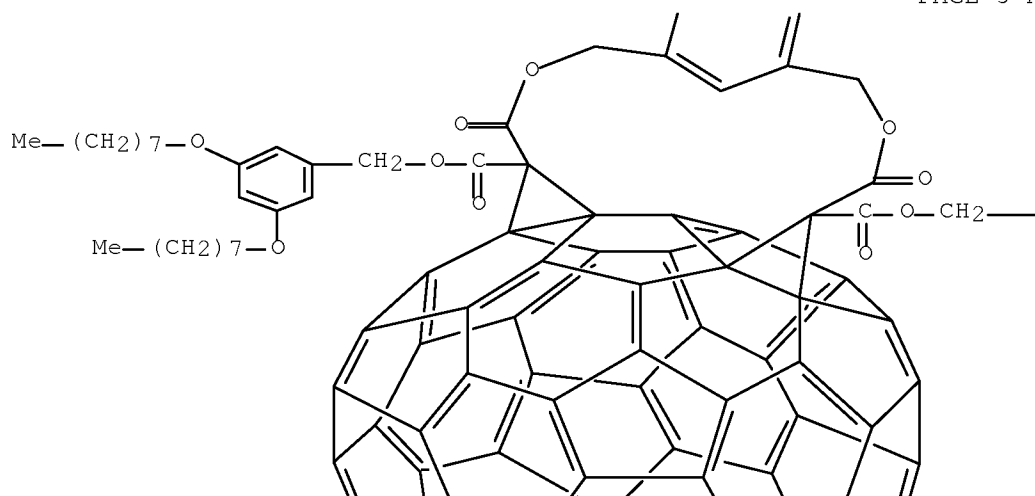
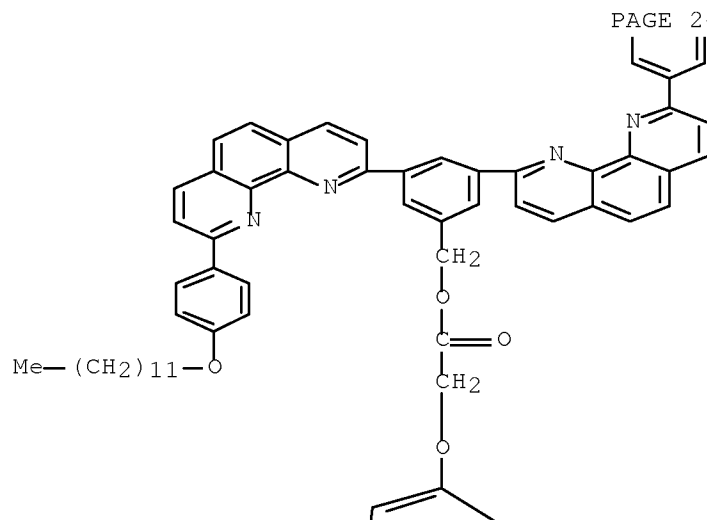
AU Holler, Michel; Cardinali, Francois; Mamlouk, Hind; Nierengarten, Jean-Francois; Gisselbrecht, Jean-Paul; Gross, Maurice; Rio, Yannick; Barigilletti, Francesco; Armaroli, Nicola

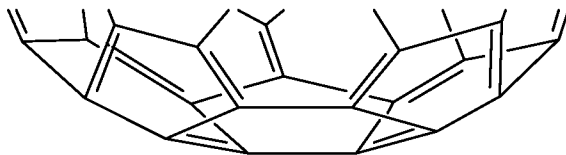
CS Groupe de Chimie des Fullerenes et des Systemes Conjugues, Ecole Europeenne de Chimie, Polymeres et Materiaux, Universite Louis Pasteur et

CNRS, Strasbourg, 67087, Fr.
 SO Tetrahedron (2006), 62(9), 2060-2073
 CODEN: TETRAB; ISSN: 0040-4020
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 144:378849
 IT 757248-88-7F 881834-16-8F
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (ligand; reaction with excess of Cu(CH₃CN)₄BF₄ in CH₂Cl₂/CH₃CN at room
 temperature)
 RN 757248-88-7 CAPLUS
 CN 3',3''-(Methanoxymethano[1,3]benzenomethanoxymethano)-3'H,3''H-
 dicyclopropa[1,9:3,15][5,6]fullerene-C₆₀-1h-3',3''-dicarboxylic acid,
 11'-[2-[[3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-phenanthroline-2-
 yl]phenyl]methoxy]-2-oxoethoxy]-4',15'-dioxo-, bis[[3,5-
 bis(octyloxy)phenyl]methyl] ester (9CI) (CA INDEX NAME)

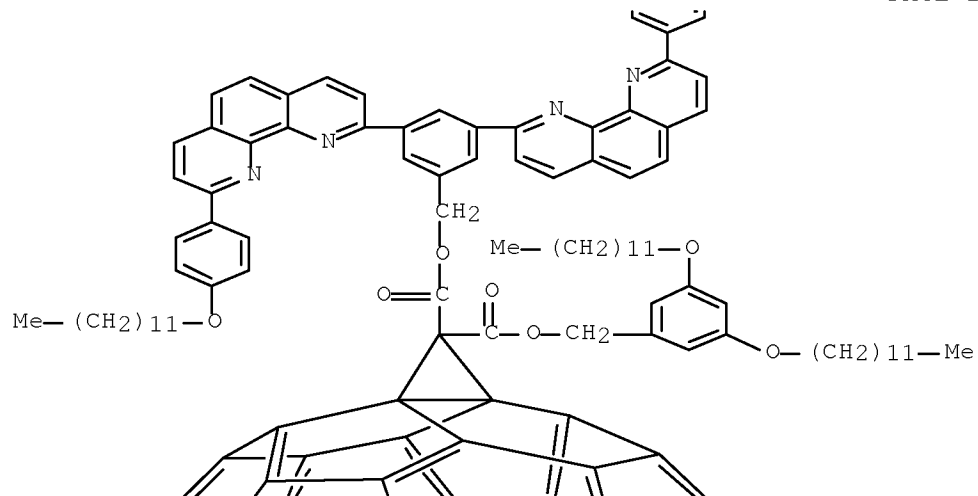
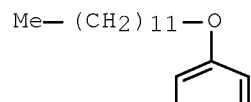
PAGE 1-A

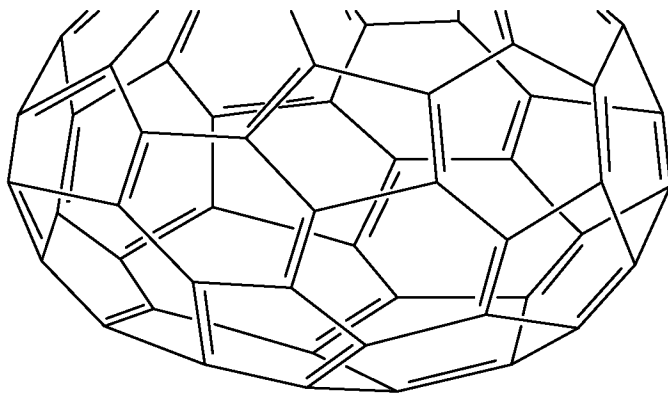






RN 881834-16-8 CAPLUS
 CN 3'H-Cyclopropa[1,9][5,6]fullerene-C60-Ih-3',3'-dicarboxylic acid,
 [3,5-bis(dodecyloxy)phenyl]methyl [3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-
 phenanthroline-2-yl]phenyl]methyl ester (9CI) (CA INDEX NAME)





RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Org. light-emitting devices are described which comprise a pair of electrodes which consist of an anode and a cathode and a plurality of organic layers interposed between the pair of electrodes, where the plurality of organic layers include at least an emission layer and another organic layer which is in contact with an anode-side-interface of the emission layer, and where the emission layer include at least a host material; a light-emitting material; and another material having a smaller ionization potential than and almost the same hole mobility as or a greater hole mobility than an ionization potential and a hole mobility of a compound which constitutes an emission layer-interface-side of the another organic layer.

AN 2006:79380 CAPLUS Full-text

DN 144:138659

TI Organic light-emitting devices employing a modifying material with specific ionization potential and hole mobility in light-emitting layer

IN Okinaka, Keiji; Saitoh, Akihito; Yamada, Naoki; Yashima, Masataka; Suzuki, Koichi; Senoo, Akihiro; Ueno, Kazunori

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

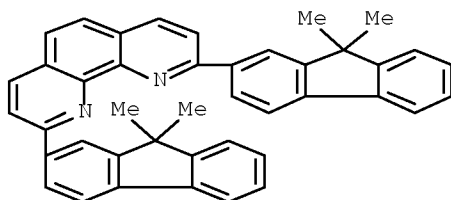
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 2006017376	A1	20060126	US 2005-175206	20050707
				JP 2004-211231	A 20040720
	JP 2006032757	A	20060202	JP 2004-211231	20040720
	CN 1725918	A	20060125	CN 2005-10086021	20050720
				JP 2004-211231	A 20040720
	KR 2006053917	A	20060522	KR 2005-65611	20050720
	KR 751626	B1	20070822		
				JP 2004-211231	A 20040720
IT	676542-63-5				

RL: DEV (Device component use); USES (Uses)

(electron-transporting layer; organic light-emitting devices employing modifying material with specific ionization potential and hole mobility in light-emitting layer)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB There is no methodol. for the estn. of the dynamic features of large-mol.-weight RNAs in homogeneous physiol. media. In this report, a luminescence anisotropy-based method using a long-lifetime luminescent oligonucleotide probe for the estimation of the dynamic features of large-mol.-weight RNA is described. As a luminescent probe, Ru(II) complex-labeled oligonucleotides, which have a complementary sequence to the single-stranded regions of Escherichia coli 16S rRNA, were synthesized. After the hybridization of the probe to single-stranded regions of 16S rRNA, the segmental motions of the regions were evaluated by time-resolved luminescence anisotropy anal. In 16S rRNA, the L2 site (323-332 nt) was found to be the most flexible among the seven sites chosen. From a comparison between the hybridization kinetics of oligonucleotides to these single-stranded regions and the rotational correlation times, it was suggested that the flexibility of the single-stranded region was closely correlated with the hybridization kinetics. Furthermore, results of the luminescence lifetime measurement and luminescence quenching expts. suggested that the highly flexible region was located on the surface of the 16S rRNA and that the less flexible region was located in the depths of 16S rRNA.

AN 2005:1315115 CAPLUS Full-text

DN 144:186610

TI Evaluation of dynamic features of Escherichia coli 16S ribosomal RNA in homogeneous physiological solution

AU Sakamoto, Takashi; Mahara, Atsushi; Yamagata, Koichi; Iwase, Reiko; Yamaoka, Tetsuji; Murakami, Akira

CS Department of Polymer Science and Engineering, Kyoto Institute of Technology, Sakyo-ku, Kyoto, Japan

SO Biophysical Journal (2005), 89(6), 4122-4128
CODEN: BIOJAU; ISSN: 0006-3495

PB Biophysical Society

DT Journal

LA English

IT 875167-79-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

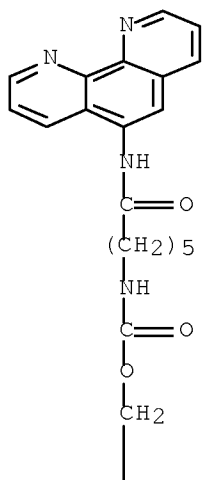
(16S rRNA displays highly flexible loop region located on surface and less flexible loop region located in depths)

RN 875167-79-6 CAPLUS

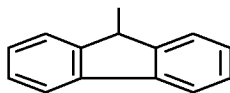
CN Carbamic acid, [6-oxo-6-(1,10-phenanthrolin-5-ylamino)hexyl]-,

9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

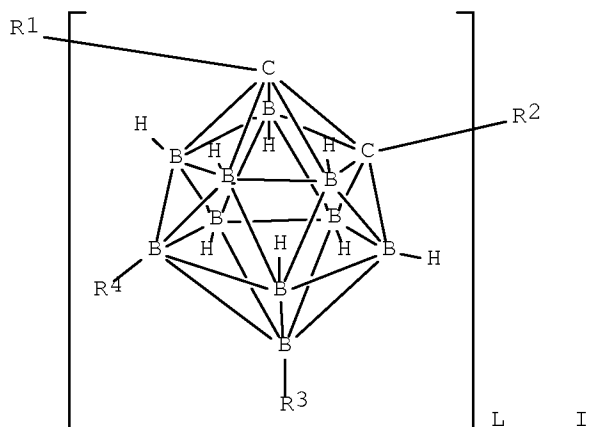


PAGE 2-A



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The invention refers to an electroluminescent device comprising at least one layer containing carborane compound I [R1-4 = H, (un)substituted alkyl, aryl heterocycle, condensed polycyclic aromatic or condensed polycyclic heterocycle; L = 1 - 20].

AN 2005:546320 CAPLUS Full-text

DN 143:86374

TI Organic electroluminescent device using carborane compound

IN Suzuki, Koichi; Okajima, Aki; Ueno, Kazunori

PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2005166574	A	20050623	JP 2003-406967	20031205
				JP 2003-406967	20031205

OS MARPAT 143:86374

IT 855312-38-8 855312-50-4

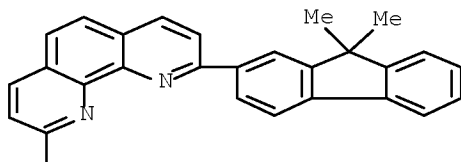
RL: DEV (Device component use); USES (Uses)

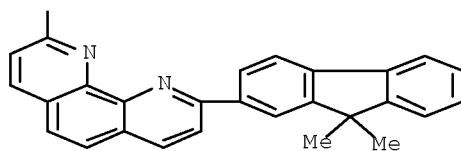
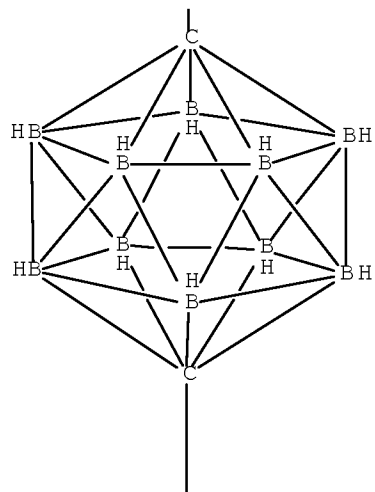
(Organic electroluminescent device using carborane compound)

RN 855312-38-8 CAPLUS

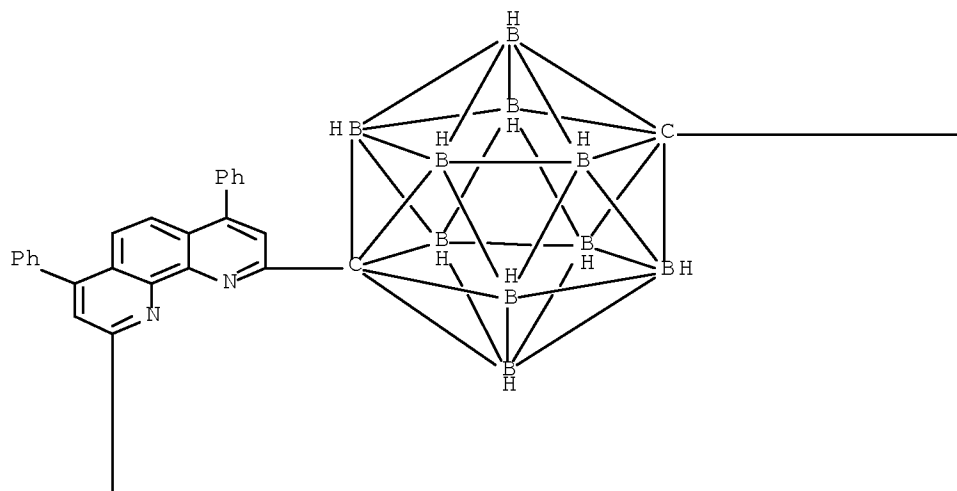
CN 1,10-Phenanthroline, 2,2'-(1,12-dicarbadodecaborane(12)-1,12-diyl)bis[9-(9,9-dimethyl-9H-fluoren-2-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A

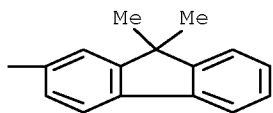




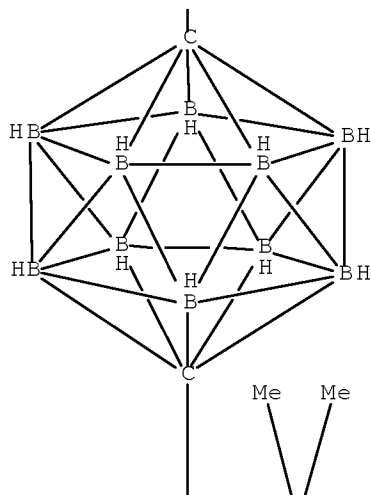
RN 855312-50-4 CAPLUS
 CN 1,10-Phenanthroline, 2,9-bis[12-(9,9-dimethyl-9H-fluoren-2-yl)-1,12-dicarbido-dodecaboran(12)-1-yl]-4,7-diphenyl- (9CI) (CA INDEX NAME)



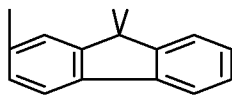
PAGE 1-B



PAGE 2-A

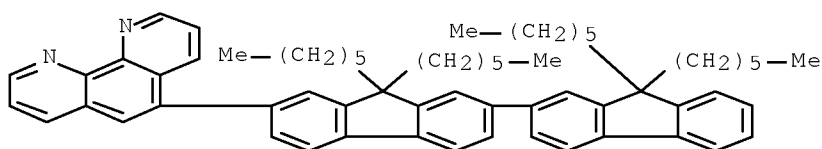


PAGE 3-A



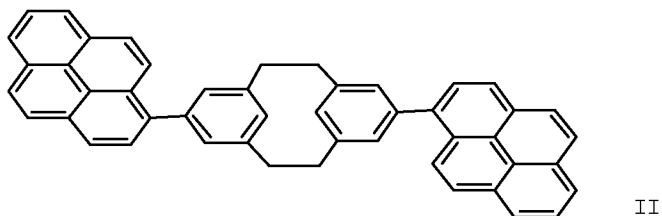
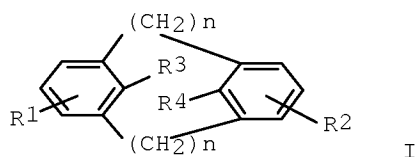
L4 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB The nonlinear absorption properties are reported of different coordination
comps. (M = Eu, Zn), based on the bifluorene system. Measurements were
performed in CHCl₃ at 450–650 nm for ns time duration pulses. The nonlinear
absorption is attributed to a 3-photon absorption process involving a 1st 2-
photon absorption step followed by an excited state absorption process. The
3-photon absorption efficiency of these complexes is similar to that of the
bifluorene for a same concentration in bifluorene, with also an excellent
thermal stability.
AN 2005:404793 CAPLUS Full-text
DN 144:159498
TI Polyfluorene based coordination compounds for nonlinear absorption
AU Girardot, Camille; Lemerrier, Gilles; Andraud, Chantal; Amari, Nadia;
Baldeck, Patrice L.

CS Ecole Normale Supérieure de Lyon, Laboratoire de Chimie, Lyon, Fr.
 SO Molecular Crystals and Liquid Crystals (2005), 426, 197-204
 CODEN: MCLCD8; ISSN: 1542-1406
 PB Taylor & Francis, Inc.
 DT Journal
 LA English
 IT 873096-72-1
 RL: PRP (Properties)
 (nonlinear optical absorption of)
 RN 873096-72-1 CAPLUS
 CN 1,10-Phenanthroline, 5-(9,9,9',9'-tetrahexyl[2,2'-bi-9H-fluoren]-7-yl)-
 (CA INDEX NAME)



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 GI



AB The metacyclophanes are I (R1-R4 = H, alkyl, alkoxy, aryl, etc.; R1 and/or R2 = aryl, heterocyclic group, condensed polycyclic aromatic group, condensed polycyclic heterocyclic group, substituted amino, substituted alkenyl, substituted boryl; n = 2-4). Thus, an organic electroluminescent device having an emitter layer containing coumarin and pyrenyl-containing metacyclophane II is exemplified.

AN 2005:365458 CAPLUS Full-text

DN 142:419729

TI Metacyclophanes, and their organic electroluminescent devices showing high luminescence efficiency and intensity

IN Okajima, Maki; Suzuki, Koichi; Ueno, Kazunori

PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005112784	A	20050428	JP 2003-349216	20031008
	JP 4035499	B2	20080123		

	JP 2003-349216	20031008
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OS MARPAT 142:419729

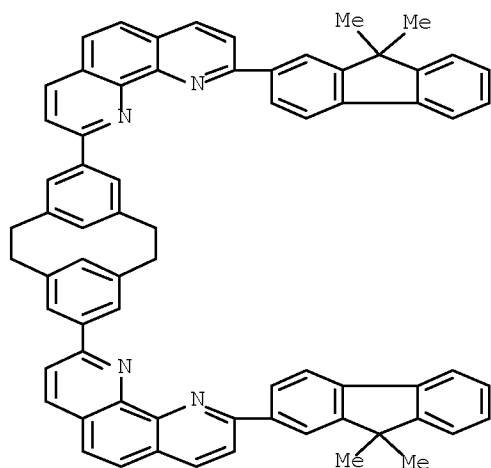
IT 850232-48-3

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(metacyclophanes for organic electroluminescent devices showing high luminescence efficiency and intensity)

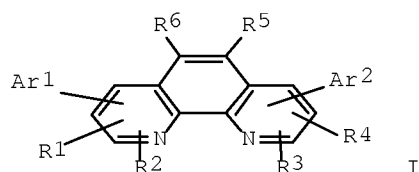
RN 850232-48-3 CAPLUS

CI 1,10-Phenanthroline, 2,2'-tricyclo[9.3.1.14,8]hexadeca-1(15),4,6,8(16),11,13-hexaene-6,13-diylbis[9-(9,9-dimethyl-9H-fluoren-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

GI



AB Light-emitting devices comprising ≥ 1 org. compd. layer sandwiched between a pair of electrodes are described in which the organic compound layer in contact with the cathode contains a phenanthroline compound described by the

general formula I (R1-6 = independently selected hydrogen, alkyl, (un)substituted aralkyl, (un)substituted aryl, (un)substituted heterocyclic, and halo atom; and Ar1 and Ar2 = independently selected (un)substituted condensed polycyclic aromatic or condensed polyheterocyclic groups) and a carbonate. The cathode may comprise In Sn oxide or ≥ 1 of Ag, Au, and Al. The inventors suggest that it is the higher glass transition temps. of the materials used relative to those of conventional materials that is responsible for the increase in lifetime of devices fabricated using them relative to conventional devices.

AN 2004:965575 CAPLUS Full-text

DN 141:403314

TI Light-emitting devices with organic layers containing phenanthroline derivatives and carbonates

IN Hasegawa, Toshinori; Suzuki, Koichi; Okajima, Maki; Kimura, Toshihide

PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2004098242	A1	20041111	WO 2004-JP5556	20040419
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2004335143	A	20041125	JP 2003-125447	A 20030430
	JP 3890317	B2	20070307	JP 2003-125447	20030430
	TW 228385	B	20050221	TW 2004-93111642	20040426
				JP 2003-125447	A 20030430

OS MARPAT 141:403314

IT 676542-63-5

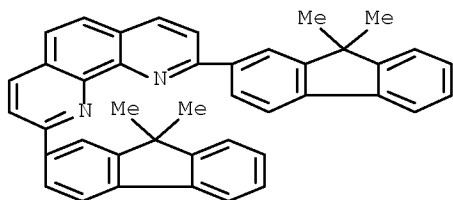
RL: DEV (Device component use); USES (Uses)

(light-emitting devices with organic layers containing phenanthroline derivs.

with polycyclic substituents and carbonates)

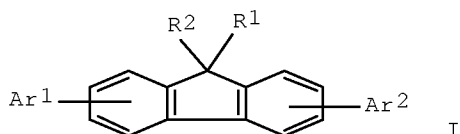
RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The fluorenes are I (R1, R2 = H, halo, alkyl, etc.; Ar1, Ar2 = N-contg. heterocyclic group; benzene ring may have substituents other than the heterocyclic group). Organic electroluminescent devices using I are capable of operating at low voltage for a long time.

AN 2004:823203 CAPLUS Full-text

DN 141:304070

TI Fluorenes as electron transporters and electroluminescent materials for organic electroluminescent devices

IN Kido, Junji; Sesha Sainth, Anadana Venkata; Sato, Yoshiharu

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2004277377	A	20041007	JP 2003-74088	20030318
				JP 2003-74088	20030318

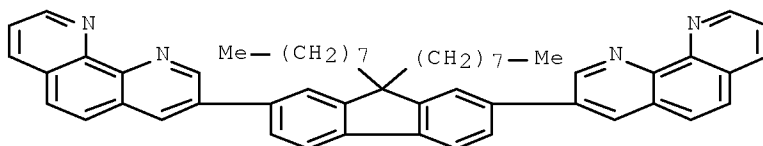
OS MARPAT 141:304070

IT 763106-31-6F

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorenes as electron transporters and electroluminescent materials for organic electroluminescent devices)

RN 763106-31-6 CAPLUS

CN 1,10-Phenanthroline, 3,3'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis- (CA INDEX NAME)



L4 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The invention relates to an org. electroluminescent device comprising a hole transporting layer, a light-emitting layer, and an electron transporting layer

sandwiched between a anode and a cathode, wherein the light emitting layer is composed of a guest material doped layer and a nondoped layer.

AN 2004:741993 CAPLUS Full-text

DN 141:251204

TI Organic electroluminescent device

IN Asahi, Noboru; Fujimori, Shigeo; Nishiyama, Takuya

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

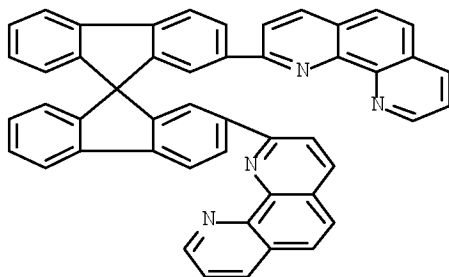
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2004253373	A	20040909	JP 2004-12855	20040121
				JP 2003-17084	A 20030127

IT 252878-73-2

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA
INDEX NAME)

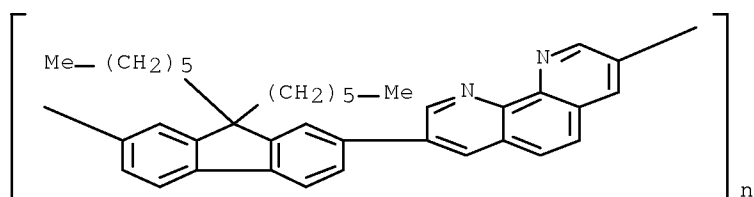


L4 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

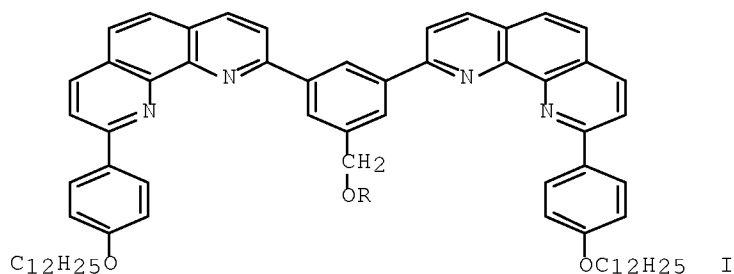
AB The effects of the rigidity of mol. recognition sites in fluorene-based conjugated polymers P1 and P2 in solution on metal ion sensing have been investigated. The structures of polymer P1 and P2 have twisted 2,2'-bipyridine and planar 1,10-phenanthroline units, resp., which alternate with one fluorene monomer unit. It is found that absorption and emission bands of 1,10-phenanthroline-based polymer P2 exposed to metal ions can be red-shifted up to 30 nm, and emission intensity can be quenched up to 100%, depending on metal ions present, which is very similar to the behavior of 2,2'-bipyridine-based analog P1. And P2 shows much higher sensitivity to metal ion than that of P1. The origins of effects of 2,2'-bipyridine-based conjugated polymer due to the metal ion chelation have been attributed to both conformational changes and electron d. variations on the polymer chains caused by introducing pos. charged metal ions. Based on the fact that conformational changes are not required in the ion responsive process of phen ion-recognition unit, we demonstrate that the electron d. variations play more important roles in metal ion induced red shifts in absorption and fluorescence quenching in photoluminescence. The higher sensitivity of P2. films to metal ions compared with P1 suggest the use of rigid units as mol. recognition.sites in the fluorescent ions-sensory conjugated polymer for achieving higher sensing sensitivity, which is also significant for studying the nature of ion-chromatic effect of conjugated polymer. The study present herein has, to a

certain degree, elucidated the nature of metal ion and polymer interactions and demonstrated a new approach to improve the metal ions sensing properties of conjugated polymer.

AN 2004:703154 CAPLUS [Full-text](#)
 DN 142:347523
 TI Study of the fluorescence conjugated polymers on metal ion sensing
 AU Zhang, Ming; Lu, Ping; Tian, Lei-Lei; Zhang, Wu; Yang, Bing; Ma, Ya-Guang
 CS Key Laboratory for Supramolecular Structure and Materials of Education, Jilin University, Changchun, 130012, Peop. Rep. China
 SO Wuli Huaxue Xuebao (2004), 20(Spec. Issue), 924-939
 CODEN: WHXUEU; ISSN: 1000-6818
 PB Wuli Huaxue Xuebao Bianjibu
 DT Journal
 LA Chinese
 IT 575433-07-7
 RL: DEV (Device component use); USES (Uses)
 (fluorescence of conjugated polymers on metal ion sensing)
 RN 575433-07-7 CAPLUS
 CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI)
 (CA INDEX NAME)



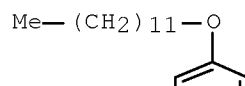
L4 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
 GI

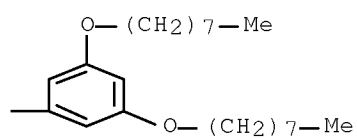
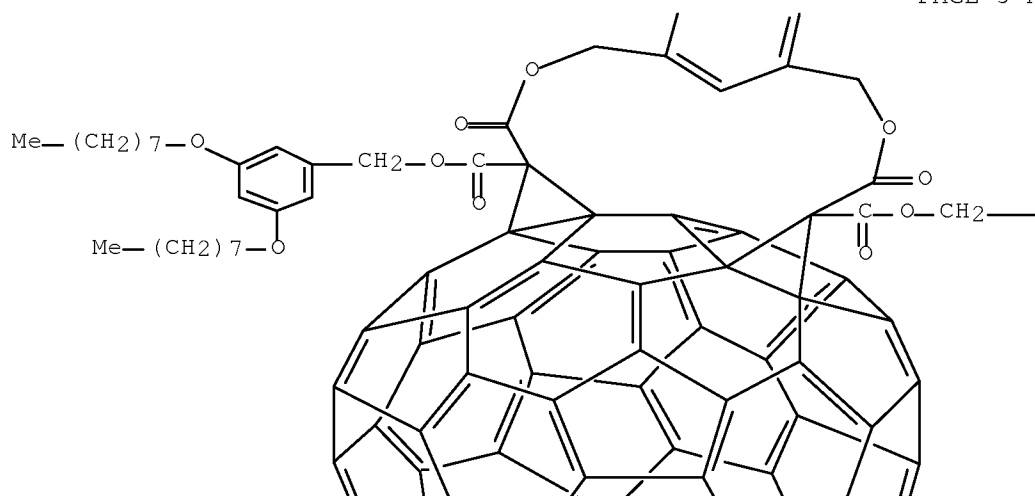
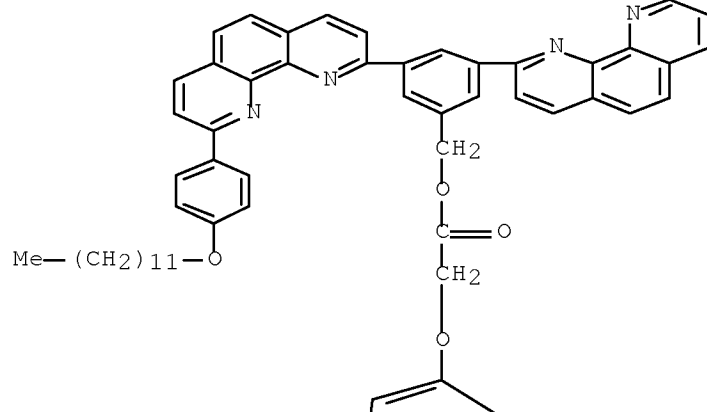


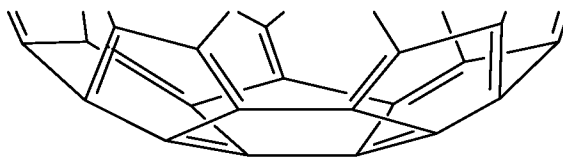
AB A multicomponent array $[Cu_2L_2](BF_4)_2$ ($L = I$, $R = C_{60}$ fullerene deriv.) made of a dicopper(I) m-phenylenebis(phenanthroline) helicite core and two peripheral fullerene subunits was prepared and its photophys. properties studied. Electron transfer from the photoexcited Cu(I)-complexed unit to C_{60} occurs.
 AN 2004:581935 CAPLUS [Full-text](#)
 DN 141:288029
 TI Fullerohelicates: a new class of fullerene-containing supermolecules

AU Cardinali, Francois; Mamlouk, Hind; Rio, Yannick; Armaroli, Nicola;
 Nierengarten, Jean-Francois
 CS Ecole Europeenne de Chimie, Polymeres et Materiaux (ECPM), Groupe de
 Chimie des Fullerenes et des Systemes Conjugues, Universite Louis Pasteur
 et CNRS (UMR 7504), Strasbourg, 67087, Fr.
 SO Chemical Communications (Cambridge, United Kingdom) (2004), (14),
 1582-1583
 CODEN: CHCOFS; ISSN: 1359-7345
 PB Royal Society of Chemistry
 DT Journal
 LA English
 OS CASREACT 141:288029
 IT 757248-88-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and complexation with copper(I) to give dicopper(I)
 fullerohelicate)
 RN 757248-88-7 CAPLUS
 CN 3',3''-(Methanoxymethano[1,3]benzenomethanoxymethano)-3'H,3''H-
 dicyclopropa[1,9:3,15][5,6]fullerene-C60-Ih-3',3''-dicarboxylic acid,
 11'-[2-[[3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-phenanthroline-2-
 yl]phenyl]methoxy]-2-oxoethoxy]-4',15'-dioxo-, bis[[3,5-
 bis(octyloxy)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

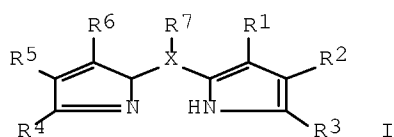






RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The invention relates to an electroluminescent device, suited for use in making a white light-emitting device, comprising an electroluminescent layer containing a pyrromethene compound or its metal complex, represented by I [R1-7 = H, alkyl, cycloalkyl, etc.; X = N and C, when X = N, then R7 = null], and an electron transporting layer having the ionization potential ≥ 5.8 eV. The metal forming the complex with the pyrromethene compound I is selected from B, Be, Mg, Cr, Fe, Co, Ni, Cu, Zn, and Pt.

AN 2004:569278 CAPLUS Full-text

DN 141:131039

TI Electroluminescent device

IN Murase, Seiichiro; Tominaga, Takeshi; Kitazawa, Daisuke

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004200162	A	20040715	JP 2003-407179	20031205
				JP 2002-353461	A 20021205

OS MARPAT 141:131039

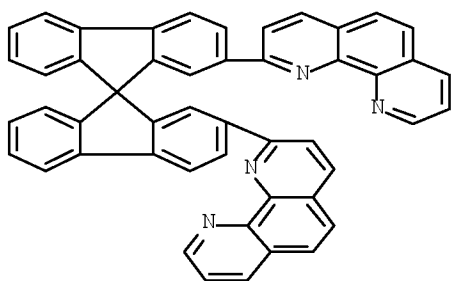
IT 252878-73-2

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(electron transporting material; organic electroluminescent device)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



L4 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The fluorescence quenching effect of the conjugated polymers P1 and P2 (the mol. recognitions are twisted 2,2'-bipyridine (bpy) and planar 1,10-phenanthroline (phen), resp.) films upon the addition of metal ions was studied. And P2 exhibited stronger fluorescence quenching ability upon the addition of both transition metal ions and main group metal ions compared with that of P1. The 20° twist angle between the two consecutive pyridine rings of bpy unit in the P1 main chain is the reason for the weaker fluorescence quenching ability compared with P2, in which the planar phen unit can chelate with metal ions relatively freely without the conformational transition. So P2 is a kind of material with better properties for solid film devices, such as sensors for metal ions recognition.

AN 2004:318909 CAPLUS Full-text

DN 142:64346

TI Fluorescence quenching effect of metal ions for α,α' -diamine containing conjugated polymers in solid films

AU Tian, Leilei; Zhang, Ming; Lu, Ping; Zhang, Wu; Yang, Bing; Ma, Yuguang

CS Key Lab of Supramolecular Structure and Materials of Ministry of Education, Jilin University, Changchun, 130023, Peop. Rep. China

SO Chinese Science Bulletin (2004), 49(3), 246-248
CODEN: CSBUEF; ISSN: 1001-6538

PB Science in China Press

DT Journal

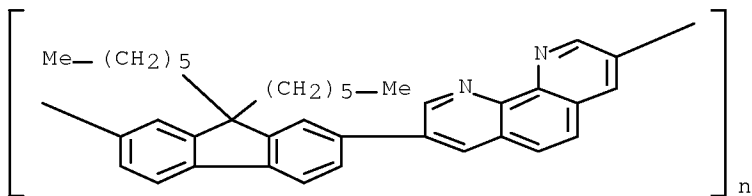
LA English

IT 575433-07-7

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(fluorescence quenching effect of metal ions for α,α' -diamine containing conjugated polymers in solid films)

RN 575433-07-7 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI)
(CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Phenanthroline derivs. are described by the general formulas I, II, and III (R1-16 = independently selected H, (un)substituted alkyl, (un)substituted aralkyl, (un)substituted aryl, (un)substituted heterocyclic, and halo atom; Ar1-8 = independently selected (un)substituted fluorenyl, (un)substituted fluoranthenyl, (un)substituted perylenyl, and (un)substituted carbazolyl). Organic light-emitting devices using the phenanthroline derivs. (e.g., as an electron-transporting layer or a light-emitting layer) are also described.

AN 2004:267333 CAPLUS Full-text

DN 140:311707

TI Phenanthroline compound and organic light emitting device using same

IN Okajima, Maki; Kawai, Tatsundo; Takiguchi, Takao; Suzuki, Koichi; Senoo, Akihiro; Hasegawa, Toshinori; Okinaka, Keiji

PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2004026870	A1	20040401	WO 2003-JP11485	20030909
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				JP 2002-272408	A 20020919
	JP 2004107263	A	20040408	JP 2002-272408	20020919
	AU 2003260955	A1	20040408	AU 2003-260955	20030909
				JP 2002-272408	A 20020919
				WO 2003-JP11485	W 20030909
	US 2006097227	A1	20060511	US 2005-527192	20050310
				JP 2002-272408	A 20020919
				WO 2003-JP11485	W 20030909

OS MARPAT 140:311707

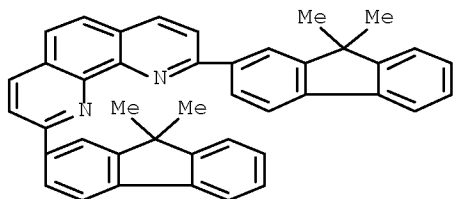
IT 676542-63-5 676542-64-6 676542-66-8
676542-67-9 676542-69-1 676542-70-4
676542-73-7 676542-74-8 676542-75-9
676542-77-1 676542-78-2 676542-79-3
676542-83-9 676542-87-3

RL: DEV (Device component use); USES (Uses)

(phenanthroline derivs. and organic light-emitting devices using them)

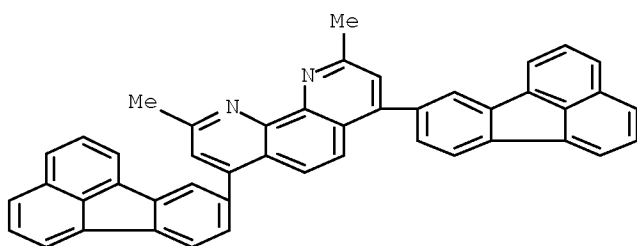
RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



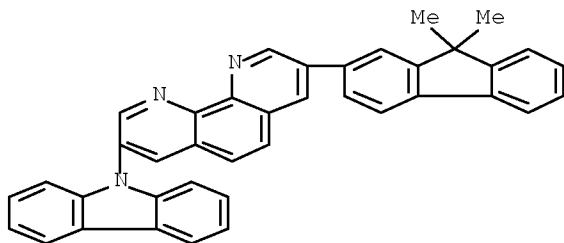
RN 676542-64-6 CAPLUS

CN 1,10-Phenanthroline, 4,7-bis(8-fluoranthenyl)-2,9-dimethyl- (9CI) (CA INDEX NAME)



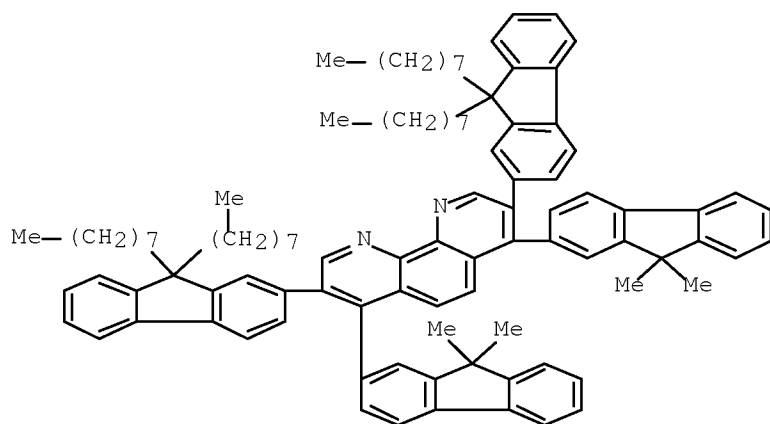
RN 676542-66-8 CAPLUS

CN 1,10-Phenanthroline, 3-(9H-carbazol-9-yl)-8-(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



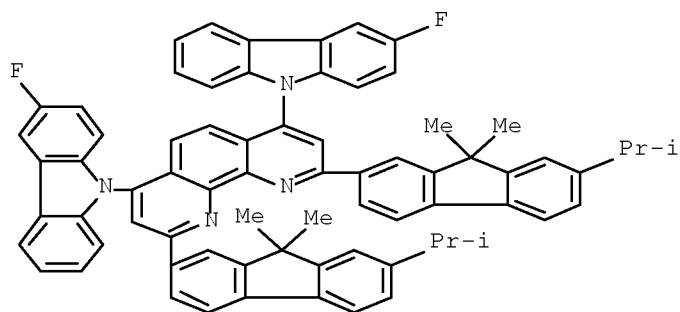
RN 676542-67-9 CAPLUS

CN 1,10-Phenanthroline, 4,7-bis(9,9-dimethyl-9H-fluoren-2-yl)-3,8-bis(9,9-dioctyl-9H-fluoren-2-yl)- (CA INDEX NAME)



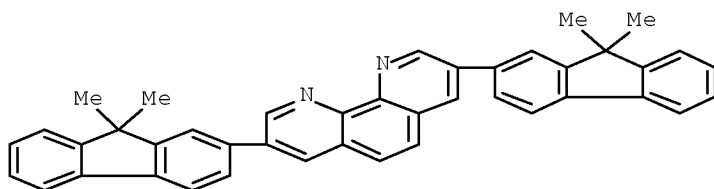
RN 676542-69-1 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis[9,9-dimethyl-7-(1-methylethyl)-9H-fluoren-2-yl]-4,7-bis(3-fluoro-9H-carbazol-9-yl)- (CA INDEX NAME)



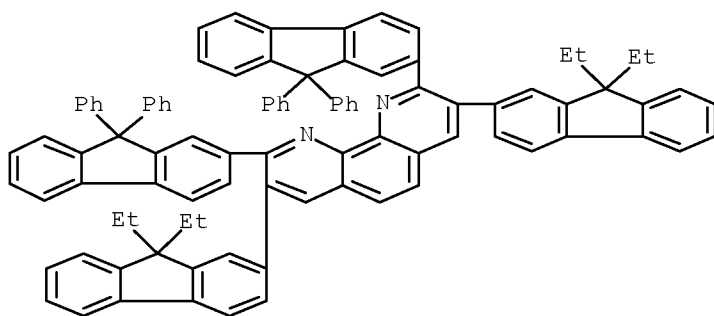
RN 676542-70-4 CAPLUS

CN 1,10-Phenanthroline, 3,8-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)

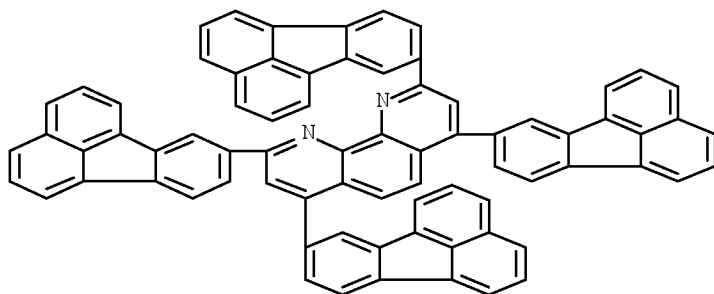


RN 676542-73-7 CAPLUS

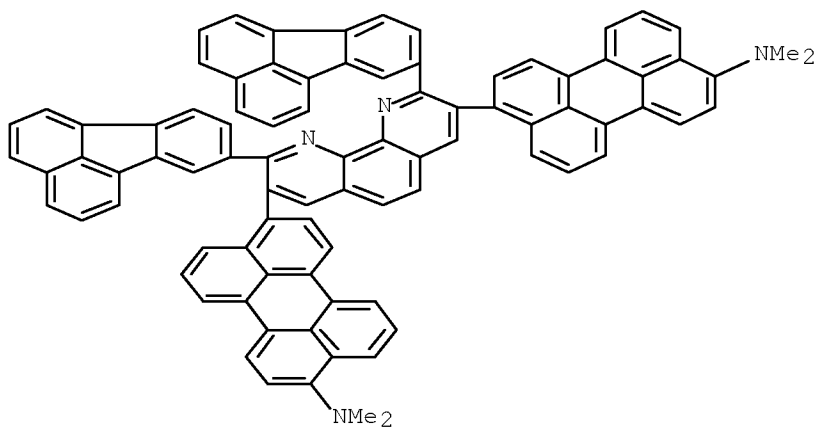
CN 1,10-Phenanthroline, 3,8-bis(9,9-diethyl-9H-fluoren-2-yl)-2,9-bis(9,9-diphenyl-9H-fluoren-2-yl)- (CA INDEX NAME)



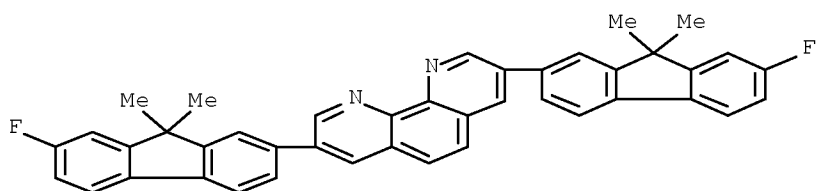
RN 676542-74-8 CAPLUS
 CN 1,10-Phenanthroline, 2,4,7,9-tetrakis(8-fluoranthenyl)- (9CI) (CA INDEX NAME)



RN 676542-75-9 CAPLUS
 CN 3-Perylenamine, 9,9'-(2,9-di-8-fluoranthenyl-1,10-phenanthroline-3,8-diyl)bis[N,N-dimethyl- (9CI) (CA INDEX NAME)

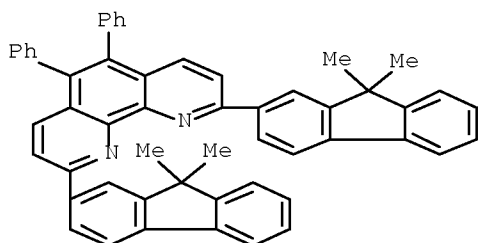


RN 676542-77-1 CAPLUS
 CN 1,10-Phenanthroline, 3,8-bis(7-fluoro-9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



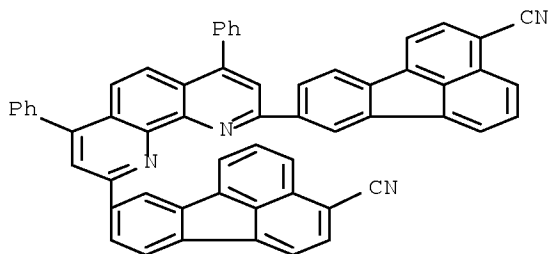
RN 676542-78-2 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-5,6-diphenyl-
(CA INDEX NAME)



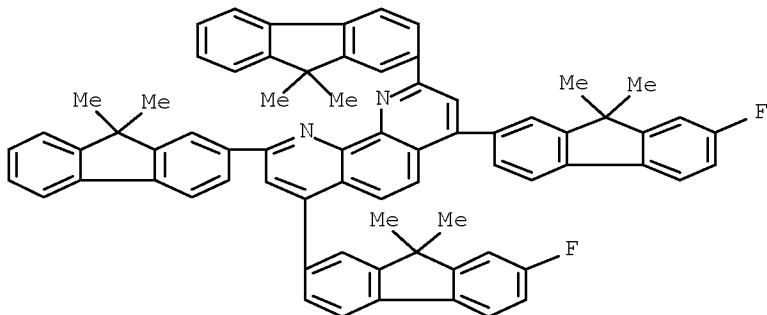
RN 676542-79-3 CAPLUS

CN 3-Fluoranthracenecarbonitrile, 8,8'-(4,7-diphenyl-1,10-phenanthroline-2,9-
diyl)bis- (CA INDEX NAME)

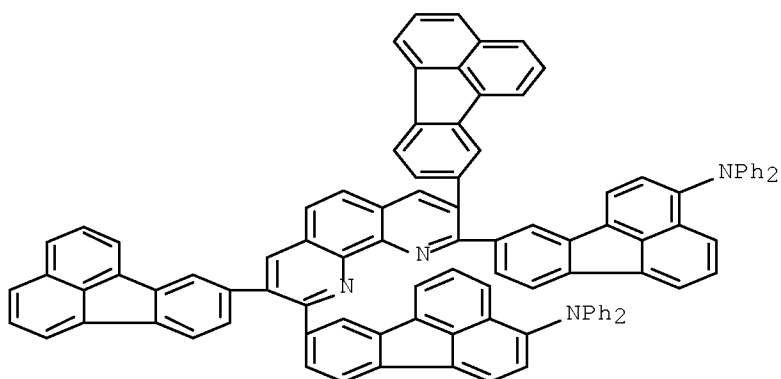


RN 676542-83-9 CAPLUS

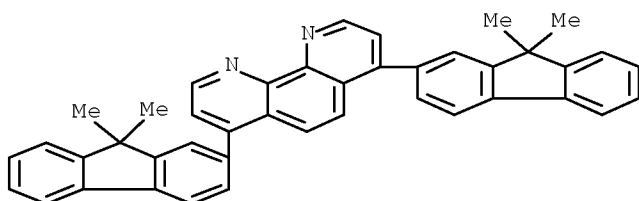
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-bis(7-
fluoro-9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



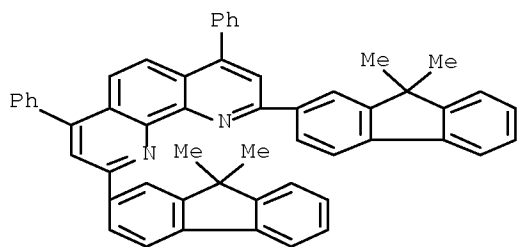
RN 676542-87-3 CAPLUS
 CN 3-Fluoranthenamine, 8-[9-[4-(diphenylamino)-8-fluoranthenyl]-3,8-bis(8-fluoranthenyl)-1,10-phenanthroline-2-yl]-N,N-diphenyl- (9CI) (CA INDEX NAME)



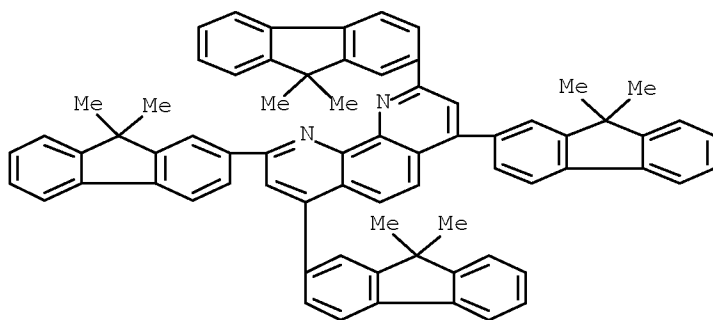
IT 676542-60-2P
 RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (phenanthroline derivs. and organic light-emitting devices using them)
 RN 676542-60-2 CAPLUS
 CN 1,10-Phenanthroline, 4,7-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



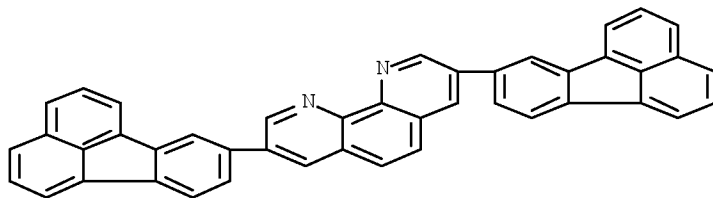
IT 676542-59-9P 676542-61-3P 676542-62-4P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (phenanthroline derivs. and organic light-emitting devices using them)
 RN 676542-59-9 CAPLUS
 CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-diphenyl- (CA INDEX NAME)



RN 676542-61-3 CAPLUS
 CN 1,10-Phenanthroline, 2,4,7,9-tetrakis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RN 676542-62-4 CAPLUS
 CN 1,10-Phenanthroline, 3,8-bis(8-fluoranthenyl)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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